School of Professional Studies

KU Edwards Campus School of Professional Studies

Graduation requirements and regulations for every academic program are provided in this catalog; however, this catalog is for informational purposes only and does not constitute a contract. Degree and program requirements and course descriptions are subject to change.

In most cases, you will use the catalog of the year you entered KU (see your academic success coach (https://edwardscampus.ku.edu/program-advisors/) for details). *Other years' catalogs»*

Introduction

The KUEC School of Professional Studies provides high-quality academic programs, research activities, and engaged learning initiatives that meet workforce, economic, and student needs. Our work is guided by our shared commitment to the values of collaboration, innovation, and social equity as we serve our students and the community.

Bachelor of Applied Science in Applied Cybersecurity (https://catalog.ku.edu/professional-studies/applied-cybersecurity-bas/)

Bachelor of Applied Science in Biotechnology (https://catalog.ku.edu/professional-studies/biotechnology-bas/)

Bachelor of Applied Science in Project Management (https://catalog.ku.edu/professional-studies/project-management-bas/)

Bachelor of Arts and Bachelor of General Studies in American Sign Language and Deaf Studies (https://catalog.ku.edu/professional-studies/american-sign-language-ba-bgs/)

Bachelor of Health Sciences (https://catalog.ku.edu/professional-studies/health-sciences-bhs/)

Bachelor of Professional Studies (https://catalog.ku.edu/professional-studies/professional-studies-bps/)

Bachelor of Science in Applied Biological Sciences (https://catalog.ku.edu/professional-studies/applied-biological-sciences-bs/)

Bachelor of Science in Information Technology (https://catalog.ku.edu/professional-studies/information-technology-bs/)

Bachelor of Science in Project Management (https://catalog.ku.edu/professional-studies/project-management-bs/)

Minor in Biotechnology (https://catalog.ku.edu/professional-studies/biotechnology-minor/)

Minor in Clinical Trials Management (https://catalog.ku.edu/professional-studies/clinical-trials-management-minor/)

Minor in Environmental Health (https://catalog.ku.edu/professional-studies/environmental-health-minor/)

Minor in Health Policy and Management (https://catalog.ku.edu/professional-studies/health-policy-management-minor/)

Minor in Nutrition (https://catalog.ku.edu/professional-studies/nutrition-minor/)

Minor in Project Management (https://catalog.ku.edu/professional-studies/project-management-minor/)

Minor in Public and Population Health (https://catalog.ku.edu/professional-studies/public-population-health-minor/)

Undergraduate Certificate in Advanced American Sign Language (https://catalog.ku.edu/professional-studies/advanced-american-sign-language-ucert/)

Undergraduate Certificate in ASL/English Interpreting (https://catalog.ku.edu/professional-studies/asl-english-interpreting-ucert/)

Undergraduate Certificate in Biotechnology (https://catalog.ku.edu/professional-studies/biotechnology-ucert/)

Undergraduate Certificate in Deaf Studies and Social Justice (https://catalog.ku.edu/professional-studies/deaf-studies-social-justice-ucert/)

Undergraduate Certificate in Nutrition (https://catalog.ku.edu/professional-studies/nutrition-ucert/)

Undergraduate Certificate in Public and Population Health (https://catalog.ku.edu/professional-studies/public-population-health-ucert/)

Post-Baccalaureate Certificate in Health Sciences (https://catalog.ku.edu/professional-studies/health-sciences-ucert/)

Master of Arts in Organizational Communication (https://catalog.ku.edu/professional-studies/organizational-communication-ma/)

Master of Engineering in Project Management (https://catalog.ku.edu/professional-studies/project-management-me-ms/)

Master of Science in Project Management (https://catalog.ku.edu/professional-studies/project-management-me-ms/)

Master of Science in Engineering Management (https://catalog.ku.edu/professional-studies/engineering-management-ms/)

Master of Science in Information Technology (https://catalog.ku.edu/professional-studies/information-technology-ms/)

Graduate Certificate in Advanced American Sign Language (https://catalog.ku.edu/professional-studies/advanced-american-sign-language-gcert/)

Graduate Certificate in ASL/English Interpreting (https://catalog.ku.edu/professional-studies/asl-english-interpreting-gcert/)

Graduate Certificate in Cybersecurity (https://catalog.ku.edu/professional-studies/cybersecurity-gcert/)

Graduate Certificate in Deaf Studies and Social Justice (https://catalog.ku.edu/professional-studies/deaf-studies-social-justice-gcert/)

Graduate Certificate in Foundations of Engineering Management (https://catalog.ku.edu/professional-studies/foundations-engineering-management-gcert/)

Graduate Certificate in Foundations of Project Management (https://catalog.ku.edu/professional-studies/foundations-project-management-gcert/)

Graduate Certificate in Professional Management (https://catalog.ku.edu/professional-studies/professional-management-gcert/)

Graduate Certificate in Professional Workplace Communication (https://catalog.ku.edu/professional-studies/professional-workplace-communication-gcert/)

Graduate Certificate in Software Engineering and Management (https://catalog.ku.edu/professional-studies/software-engineering-management-gcert/)

Undergraduate Programs in the School of Professional Studies

The School of Professional Studies is a University of Kansas academic unit designed and charged with serving the needs of non-traditional and transfer students in the Kansas City metro area and nationally. The undergraduate programs in the School of Professional Studies are interdisciplinary degree completion programs aimed at preparing students for high demand workforce needs.

In partnership with their academic success coach, it is the students' responsibility to become thoroughly acquainted with all requirements for the degree programs in which they plan to participate. These include all university requirements, as well as the requirements of the School of Professional Studies outlined in this section of the catalog. Students are also responsible for understanding the requirements that are unique to individual programs. By taking an active role in their undergraduate education, students maximize the value of their KU experience.

The school offers undergraduate programs in:

- American Sign Language and Deaf Studies
- Applied Biological Sciences
- Biotechnology
- Health Sciences
- Information Technology
- Nutrition
- Project Management
- Public and Population Health

View additional undergraduate programs offered at the KU Edwards Campus (https://edwardscampus.ku.edu/academic-programs/#undergraduate).

Admission

Information on undergraduate admission standards and requirements, as well as application procedures and deadlines, is found on the School of Professional Studies Programs pages. Visit the Office of Admissions (http://admissions.ku.edu/) for information about admission to KU. Visit the Office of International Support Services (http://www.iss.ku.edu/) for

information about international admissions. Students interested in pursuing a degree in the School of Professional Studies should meet with an academic success coach to learn more.

Advising

To ensure student success, all students in the School of Professional Studies will work with an academic success coach (https:// edwardscampus.ku.edu/student-services/program-info/) through their time at KU. Coaches work with students from the admissions process through graduation. For advising information, contact **913-897-8539** or visit https:// edwardscampus.ku.edu/student-services/program-info#coach (https:// edwardscampus.ku.edu/student-services/program-info/#coach).

Transfer Communities

Transfer Communities (https://edwardscampus.ku.edu/student-services/ communities/) at the KU Edwards Campus are an integrated program designed to help you transition seamlessly to KUEC while you're achieving your Associate's Degree from your community college. These program-specific experiences will connect you to events, career conversations, faculty, staff and peers with similar goals and interests to create a true community while you pursue your degree.

University Honors Program

The School encourages qualified students to participate in the Edwards Honors Program (https://edwardscampus.ku.edu/honors/). The KU Edwards Campus Honors Program is here to help you get the most out of your college experience, whether you're transferring from a community college honors program, or just getting started on your honors journey.

Graduate Programs in the School of Professional Studies

The School of Professional Studies is a University of Kansas academic unit that serves the needs of professionals in the Kansas City metro area and nationally. The graduate programs in the School of Professional Studies are interdisciplinary terminal degree programs aimed at preparing students for high demand workforce needs.

The school offers graduate programs in:

- Advanced American Sign Language
- ASL/English Interpreting
- Cybersecurity
- Deaf Studies and Social Justice
- Engineering Management
- Information Technology
- Organizational Communication
- Project Management
- Software Engineering and Management

View additional graduate programs offered at the KU Edwards Campus (https://edwardscampus.ku.edu/academic-programs/#graduate).

Degree Requirements

Requirements for the completion of master's degrees in the School of Professional Studies are governed by department- or program-specific policy, School policies and procedures, Graduate Studies policies, and the University Senate Rules and Regulations.

Information on degree requirements presented in this section is limited to the most frequently consulted policies and key milestones in the graduate career. Students will find additional information under the KU Policy Library (http://policy.ku.edu/), the Graduate Studies (https:// catalog.ku.edu/graduate-studies/) and College's graduate regulations sections of the online catalog, the academic unit's handbook, and the University of Kansas Rules and Regulations (https://catalog.ku.edu/ regulations/).

Admission

Information on graduate admission standards and requirements, as well as application procedures and deadlines, is found on the School of Professional Studies Programs pages. Visit Graduate Studies Admission (https://graduate.ku.edu/prospective-students/)for information about admission to KU. Visit the Office of International Support Services (http:// www.iss.ku.edu/) for information about international admissions. Students interested in pursuing a degree in the School of Professional Studies should meet with an academic success coach to learn more.

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Undergraduate & Graduate Scholarships and Financial Aid

The School of Professional Studies seeks to make the KU experience affordable to all students and encourages all students to explore the affordability (https://edwardscampus.ku.edu/edwards-campus-tuition-fees/) options available through KU Edwards. Additional scholarship resources can be found through the KU Edwards Financial Aid and Scholarship (https://edwardscampus.ku.edu/financial-aid-scholarships/) and Financial Aid and Scholarships (https://financialaid.ku.edu/).

Metro KC Tuition Rate

The KU Edwards Campus Metro KC Rate (https:// edwardscampus.ku.edu/metrokc-tuition-rate/) offers tuition equivalent to in-state rates for Missouri residents who meet the qualifications below. No credit hour limit applies. To receive this special rate, please fill out the Metro KC Rate (http://edwardscampus.ku.edu/edwards-campus-metrokc-application/).

To receive a need-based scholarships, the student must have submitted the FAFSA form (https://studentaid.gov/h/apply-for-aid/fafsa/) (https:// studentaid.gov/h/apply-for-aid/fafsa/)and been determined to be eligible. Merit-based scholarships also are offered.

Additional funds may be available from the University of Kansas Financial Aid & Scholarships (http://affordability.ku.edu/).

Graduate Fellowships and Assistantships

Visit the Graduate Studies website for information about funding opportunities (http://graduate.ku.edu/funding/) for graduate students at KU.

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

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

Undergraduate Regulations

Absences

A student with excessive absences may be withdrawn from the course by the Dean. Instructors may require a certain level of attendance for passing a course and may drop a student for lack of attendance without the student's consent.

Change of School

Students with a KU cumulative GPA of 2.00 or higher (or in their first semester) can fill out a Change of School form requesting to be admitted to the School of Professional Studies, from a different KU school, through the last day of class for the current semester. Requests made after that will be for admission in the upcoming semester. This process is for active KU students. Students not admitted to KU follow the University's admission policy.

Credit/No Credit

A Credit/No Credit option is available to all degree-seeking undergraduates. Students may enroll in one course a semester under the option if the course is **not** in your major or minor. For more information, visit the KU Policy Library (http://policy.ku.edu/).

Warning: Certain undesirable consequences may result from exercising the option. Some schools, scholarship committees, and honorary societies do not accept this grading system and convert grades of No Credit to F when computing grade-point averages. Always check with your advisor before electing C/NC as policies vary from program to program.

Graduation with Distinction and Highest Distinction

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

Honor Roll (Dean's List)

Students who earn a 3.75 grade point average or above in at least 6 credit hours for the semester are recognized on the honor roll or dean's list in fall and spring. Credit/No Credit grades are not accepted. S grades are accepted. An honor roll notation appears on the transcript.

Maximum and Minimum Semester Enrollment

No student may enroll in more than 20 hours a semester, or more than 9 hours in a summer session without permission from an undergraduate advisor.

Nonresidence Study Before the Last 30 Hours

Before the last 30 hours required for the degree, students may, under certain conditions, take courses at other institutions and transfer the credit to KU. Before enrolling in a nonresidence course, check on how your courses will transfer to KU (https://admissions.ku.edu/transfer-requirements-deadlines/transfer-college-credits/) or complete KU's standard form, Request for Tentative Evaluation of Transfer Credit, in your dean's office or student services office. After completing the coursework, you must request that an official transcript be sent to the Office of Admissions (https://admissions.ku.edu/), KU Visitor Center, 1502 Iowa St., Lawrence, KS 66044-7576, 785-864-3911. For transcripts to be official, they must be mailed from the college or university directly to KU. Faxed transcripts are not accepted for posting of transfer credit. Nonresidence credit includes all credits from another college or university taken after initial enrollment at KU, military service courses, and other undergraduate course work not formally offered in the Schedule of Classes (https://classes.ku.edu/). Majors must submit the Request for Tentative Evaluation of Transfer Credit form before they enroll.

Prerequisites and Corequisites

Students are advised to enroll according to prerequisites and corequisites noted in individual course descriptions. Prerequisite waivers are used at the discretion of the Associate Dean of the School of Professional Studies and the appropriate academic program director.

Good Standing

Students with a KU cumulative GPA of 2.0 or higher are in good academic standing.

Placed on Probation

A student whose KU cumulative grade-point average falls below a 2.0 is placed on probation for the following semester.

Continued on Probation

A student on probation is continued on probation for one more semester if the KU semester grade-point average is not yet a 2.0 but progress is being made as determined by a faculty committee.

Returned to Good Standing

A student on probation is returned to good standing if the KU cumulative grade-point-average is at least 2.0.

Dismissal

A student on probation is dismissed for failure to earn a KU cumulative grade-point average of at least 2.0 in the next semester of enrollment after two consecutive semesters on probation. Students who are dismissed are dropped from any courses enrolled in for future semesters. Students who are dismissed may appeal the dismissal through the School of Professional Studies faculty committee. A student reinstated is continued on probation and has one semester to return to good standing. Students dismissed by the School may apply to another KU school or the College by completing a Change of School form.

Reinstatement after Dismissal

Students who have been dismissed may apply for readmission through the regular admissions process. Students applying for readmission after dismissal must have successfully completed any requirements set by the School of Professional Studies for readmission, if any.

Repetition of Courses

The School of Professional Studies follows the University's course repeat and grade replacement policy.

Required Work in Residence

To earn a bachelor's degree from KU, you must complete the last 30 hours of credit for the degree by resident study. Students may petition the dean for a waiver. Up to 6 hours of work completed at another institution may be accepted as part of the last 30 hours, if the hours are not in required courses in the major. If a student completes more than 6 of the last 30 hours at another college, they must complete additional KU course work to graduate. Transfer courses must be completed with a C or higher. Always check with you advisor concerning enrollment as part of the last 30 hours of your degree.

Transfer of Credit

CredTran (http://credittransfer.ku.edu/) is an undergraduate transfer course equivalency system that lists more than 2,200 colleges and universities from which KU has accepted transfer courses in the past. If a student's school or course is not listed, the evaluation will be completed when the student is admitted to KU.

Courses completed at other institutions are accepted to fulfill graduation requirements (e.g., in place of specifically prescribed courses) only if they are substantially equivalent as indicated by course description, hours of credit, and prerequisites. For courses not listed on CredTran (http://credittransfer.ku.edu/), the student must submit a petition along with a course syllabus to the School of Professional Studies. Petition forms are available by contacting a School of Professional Studies academic success coach (https://edwardscampus.ku.edu/program-advisors/).

Only transfer grades of C- or higher apply toward graduation from the School of Professional Studies.

Graduate Regulations

It is the students' responsibility to comply with all requirements for the degree programs in which they plan to participate. These include the university requirements for graduate study at KU outlined in the Graduate Studies sections of the KU Policy Library (http://www.policy.ku.edu/), the University Senate Rules and Regulations (https://catalog.ku.edu/regulations/), the Graduate Studies (https://catalog.ku.edu/graduate-studies/) sections of the online catalog, as well as the requirements of the School of Professional Studies outlined in this catalog section. Additionally, students are responsible for understanding the requirements that are unique to individual graduate programs listed herein.

To ensure student support navigating these processes, all students in the School of Professional Studies will work with an academic success coach (https://edwardscampus.ku.edu/student-services/program-info/) through their time at KU. Coaches work with students from the admissions process through graduation. To connect with your coach, contact **913-897-8539** or visit https://edwardscampus.ku.edu/student-services/program-info#coach (https://edwardscampus.ku.edu/student-services/program-info/#coach).

Admission

Graduate Studies defines the eligibility and admission criteria (https://catalog.ku.edu/graduate-studies/#admissiontext) for different categories of admission to graduate study at the University of Kansas.   Further details of program specific admission, provisional admission, and readmission information can be found at https://edwardscampus.ku.edu/school-professional-studies (https://edwardscampus.ku.edu/school-professional-studies/).

Enrollment

Full-time, Half-Time and Part-Time Enrollment

Please see the Full-time Enrollment policy in the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog and the KU Policy Library (http://policy.ku.edu/) for the definitions of full-time, half-time, and part-time enrollment.

Maximum enrollment for graduate students in the School of Professional Studies is 16 hours in Fall or Spring semester and 9 hours in the Summer session. Students may appeal to their program for exceptions.

At a minimum, all graduate students must be continuously enrolled in the Fall and Spring semesters while completing the requirements for fulfillment of their degree. Please consult the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog and the KU Policy Library (http://policy.ku.edu/) for other enrollment regulations.

Probation and Dismissal Guidelines

To be in good standing, a student must maintain a 3.0 cumulative grade-point average and be making satisfactory progress toward the degree, as determined by Graduate Studies' Good Academic Standing policy and the department or program's internal guidelines. The Good Academic Standing policy may be found in the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog and the KU Policy Library. (http://policy.ku.edu/)

Probation Due to GPA

In any semester, a student whose cumulative GPA has fallen below a 3.0 is automatically placed on academic probation for the following semester (Fall or Spring). Students are notified by the School of Professional Studies of their probationary status. Students are removed from probation once the 3.0 CUM GPA is regained. Once a student is on probation they must maintain at least a 3.0 semester (Fall, Spring, Summer) GPA to maintain progress towards removal from probation. Failure to do so will result in a review that could result in dismissal.

Dismissal

It is the academic unit's responsibility to ensure that students who are not demonstrating academic achievement sufficient to meet the requirements of a School of Professional Studies graduate degree are dismissed from their programs. This typically occurs when a student fails to meet the terms of the probationary period. Academic dismissal should occur immediately following a student's failure to meet the terms of the probationary period. The School will notify the student in writing of the reasons for their dismissal.

A student who has been dismissed from a graduate program at KU is not eligible for readmission to graduate study in any department or program at the University of Kansas. A student may petition for an exception. The

petition must be approved by the department to which the student intends to apply, the graduate division of the College, and the Dean of Graduate Studies. Such petitions are rarely approved.

University Regulations on Grading

Article II of the University Senate Rules and Regulations provides detailed information on regulations governing the grading of graduate coursework. Students should also consult the Graduate Studies (https://catalog.ku.edu/graduate-studies/) section of the online catalog and the KU Policy Library (http://policy.ku.edu/) for more information on the Grading Policy.

Time Limits

The University has established time limits governing various stages of the graduate student career.

Maximum Time to Count Required Course Work

Courses completed at the University of Kansas, or transfer credits from another university, are valid for a period of 10 years. With the endorsement of their graduate programs, students may petition the School to accept out-of-date course work to fulfill the requirements for their graduate degrees, provided they are able to justify why this course work meets the current standards of scholarship in the discipline.

Maximum Time to Complete the Degree

Graduate Studies has established time limits on master's and doctoral degree completion. Please see Graduate Studies policies on Doctoral Program Time Constraints and Master's Program Time Constraints in the Graduate Studies (https://catalog.ku.edu/graduate-studies/) sections of the online catalog and in the KU Policy Library (http://policy.ku.edu/) for full details. Master's degree students have a total of seven calendar years, excluding any periods of absence due to an approved leave of absence or voluntary discontinuation from a program, in which to complete the work for a master's degree.

A time limit extension may be granted by the School. All extension petitions require the department to prepare and submit a Graduate Degree Completion Agreement, which must then be approved by the School of Professional Studies Academic Council.   Per Graduate Studies policy, extensions may be granted for up to 1 year. However, additional time may be requested in the Completion Agreement. If a Completion Agreement with a timeline greater than one year is approved, the department must submit a renewal petition annually after the first year until the Completion Agreement has ended. Renewal petitions must indicate the student's progress on the Completion Agreement and will receive expedited review.

Academic units may set their own, more rigorous time limits. Consult with your advisor and review your academic unit's handbook and the relevant Departments and Programs section of the online catalog for program-specific information, requirements, and restrictions.

Academic and Research Integrity

The School of Professional Studies strictly enforces KU and School policies on academic and scholarly misconduct. Academic integrity requires honest performance of academic and research responsibilities by students. These include, but are not limited to, ethical preparation of assignments, reports, and research papers; completion of examinations; ethical treatment of human and animal subjects; execution of administrative requirements; and a sincere and conscientious effort by students to abide by the policies set forth by instructors and research advisors. See the School of Professional Studies website (https://edwardscampus.ku.edu/school-professional-studies/) for procedures for misconduct and grievances.

Graduation

All graduate students must be enrolled the semester they complete all degree requirements.

Graduate Studies establishes an early deadline for degree completion for each semester and summer session, usually occurring at the end of the first 2 weeks of a semester or the end of the first week of summer session. If the student was enrolled the previous semester and meets all degree requirements including the submission of all required documentation by the early deadline, they are not required to enroll for that semester.

The final Graduate Application for Graduation deadline is set by the Registrar for each semester. Please consult the official Academic Calendar (https://registrar.ku.edu/calendar/) for specific dates. To be eligible for graduation, an application for degree must be submitted and all degree requirements met by this deadline. This includes the submission of all required documentation to the School of Professional Studies.

Career

The School of Professional Studies and KU Edwards Campus (https://edwardscampus.ku.edu/student-services/career-skills/) is committed to helping you accomplish your career goals, and offers resources to help you find career solutions on how to navigate the career change process, career mobility, and/or develop strategies for that first career conversation.

University Career Center

The University Career Center (https://career.ku.edu/), Summerfield Hall, Room 206, (785-864-3624), provides career counseling and services for all KU students, including students in the School of Professional Studies, both in person as well as online through Jayhawk Ready (https://edwardscampus.ku.edu/student-services/career-skills/).

Courses

ASLD 311. Introduction to Deaf Studies. 3 Credits.
Students in the course will learn about the world of the deaf in America, deaf culture, the education of deaf children, useful technology, and the integration of deaf people into the American society. This introductory course is for students interested in fields, such as audiology; speech-language pathology; medicine; education; school, rehabilitation and mental health counseling; psychology; interpreting; ASL and deaf studies; and for anyone with a deaf person in his or her life. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 611.

ASLD 312. Intersectionality and Deaf Communities. 3 Credits.
This course brings students to the next level of understanding of the impact and role of various identities within the Deaf communities on the international and national levels, following the framework of intersectionality. Intersectionality conceptualizes the various identities, ethnicities, linguistic uses and experiences of persons, groups of people, or social problems in the world of deaf. Intersectionality looks at deaf people's overlapping identities and experiences in order to understand the

complexity of prejudices they face due to their deaf, race, class, gender, sexual orientation, religion, and other identity markers. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 612.

ASLD 313. Social Justice and Allyship with Deaf Communities. 3 Credits.
Students are introduced to the concept of allyship as one of the tenets of social justice and the process of allyship and social justice in the Deaf communities. Allyship involves support and empowerment of individuals or people experiencing oppression. Within the Deaf communities, there are varieties of Deaf individuals or peoples, such as Deaf Blacks, Deaf Native Americans, and LGBTQI. Students will learn what it means to be an ally, a process of social justice. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 613. Prerequisite: ASLD 311 or instructor permission.

ASLD 414. Historical Foundations of Deaf Education. 3 Credits.
This course engages in the study of the development of deaf educational policy, practice, and theory in relation to changes in social institutions and thought regarding language, education and cultural and medical models in the education of and for the deaf. It focuses on the analysis of contemporary deaf educational problems in the light of historical perspectives. This course is offered at the 400 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 614.

ASLD 428. Special Topics in Deaf Studies: _____. 3 Credits.
Students will gain an in depth understanding of the social life of deaf people by choosing an area of focus. Since this is a special topics course, students, interested in gaining knowledge through research about deaf social life, will choose a timely area of study in a field, such as anthropology, economics, geography, history, political science, psychology, and sociology. An example of a timely area of study in Deaf Studies is Deaf gain. Through an individualized course design, students may choose the approach of immersion in Deaf community, defined literature review, or other activity to gain an in depth understanding. This course is offered at the 400 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 628 if topic is the same.

ASLD 450. Independent Study. 1-3 Credits.
Investigation of a special research problem or directed reading in an area not covered in regular courses. No more than 6 hours of ASLD 450 may be counted toward the minimum hours required for the major. Prerequisite: Instructor consent.

ASLD 451. Directed Readings. 1-3 Credits.
This course is designed for the study of special topics related to American Sign Language and Deaf Studies at the Junior/Senior level. Prerequisite: Instructor consent.

ASLD 501. Introduction to the ASL/English Interpreting Profession. 3 Credits.
This course provides an introduction to interpreting as an occupation. Students will come to understand the history of interpreting along with the importance of interpersonal communication skills, professional ethics, parameters of responsibilities, community resources and legal ramifications as they relate to the interpreter. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 701.

ASLD 502. Theories of Interpreting: Co-Constructions of Meaning. 3 Credits.
This course provides an introduction to current theories in the processes of translation and interpreting through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply several theoretical constructs as they perform intra- and inter-lingual exercises. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 702. Prerequisite: ASLD 501 or ASLD 701 and ASLD 521 or 721 with a minimum of a C; B recommended or Instructor Approval.

ASLD 505. American Sign Language V (ASL V). 3 Credits.
This course is the expanded study of ASL IV with emphasis on increased conversation skills, vocabulary, storytelling, knowledge of Deaf culture and the Deaf community. Vocabulary is enhanced through the introduction of various content areas dealing with current events, world affairs, literature, the arts and abstract ideas. Students participate in-group discussions, speculate, make analogies, give instructions, and express feelings and intentions. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 705. Prerequisite: ASL IV with minimum grade of C or instructor approval.

ASLD 506. American Sign Language VI (ASL VI). 3 Credits.
This course is continuing from ASLD 505 ASL V. Students focus on discourse, variation in sign language use, and understanding how the Deaf community is part of a linguistic and cultural minority. Topics that will be covered include perspectives on Deafhood, attitudes toward Deaf people and signed languages, technology and communication. Students will expand on vocabulary by working on areas of advanced subject matter, application of non-manual markers, use of classifiers, and proper pronominalization. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 706. Prerequisite: ASLD 505 or ASLD 705 with minimum grade of C or instructor approval.

ASLD 520. American Sign Language Linguistics. 3 Credits.
In this course, students take an analytical approach to language and the field of linguistics as it applies to American Sign Language. ASL phonology, morphology, syntax, semantics, bilingualism, language use and usage will be examined and discussed. Language samples will be viewed and analyzed for evidence of different language structures and forms. Students will also read and critique research articles pertaining to ASL and other signed languages. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 720. Prerequisite: ASL IV or instructor approval.

ASLD 521. Discourse Analysis of ASL. 3 Credits.
This course focuses on analysis of ASL Discourse structure and features, such as use of space for cohesion, depiction, discourse markers, and use of classifiers. The course also focuses on the use of ASL discourse in formal and informal settings. Students study the genres of dialogues, public speaking, artistic expression, debate, persuasive and narrative styles in ASL. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 721. Prerequisite: ASL V with a minimum grade of C; B recommended or instructor approval.

ASLD 523. ASL Pragmatics and Syntax. 3 Credits.
This course will focus on the study of syntactic structure and its interaction with meaning. Word order, lexical categories, sentence types, clause structure, topicalization and sentences with transitive, intransitive and agreement verbs are studied. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 723. Prerequisite: ASLD 520 or ASLD 720.

ASLD 524. Visual-Gestural Communication. 3 Credits.

Students will develop capabilities in non-verbal communication and visual gestural communication utilizing the study of gestures as a form of communication and basis for visual language. Emphasis is on learning to think visually in pictures and building production and comprehension communication skills. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 724. Prerequisite: ASLD 520 or ASLD 720.

ASLD 530. American Sign Language Literature. 3 Credits.
This course will provide basic introduction, discussion, and demonstration of literature in American Sign Language (ASL). Such literature involves ASL Poetry, ASL Storytelling/ Narratives, Deaf Humor, Deaf Folklore and other genres that have been passed on from one generation to another by culturally Deaf people. Students will receive, analyze and retell a variety of ASL literature. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 730. Prerequisite: ASL IV or instructor approval.

ASLD 588. Internship in American Sign Language and Deaf Studies. 1-3 Credits.
This course provides opportunities for students to have direct interaction with Deaf, Hard of Hearing, DeafBlind community members in order to apply cultural, linguistic and power/privilege concepts learned in the classroom. Students must complete 50 hours per credit hour. Schedule will be determined by student and instructor. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 788. Prerequisite: Instructor approval.

ASLD 589. Research Experience in American Sign Language and Deaf Studies. 3 Credits.
This course guides the students in reading, understanding and evaluating current research in ASL, Deaf Studies, ASL/English interpreting and related fields. Students will learn how to publish a paper and present a poster on a chosen topic of their interest. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 789. Prerequisite: Instructor approval.

ASLD 603. Interpreting: Mediated Interactions in Communications. 3 Credits.
This course provides an introduction to real-time interpreting in mediated interaction contexts through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories, decision-making and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 803. Prerequisite: ASLD 501 or ASLD 701, ASLD 502 or ASLD 702 with a minimum grade of B or instructor approval.

ASLD 604. Interpreting: ASL to English. 3 Credits.
This course provides an introduction to real-time interpreting with an emphasis on ASL source materials through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 804. Prerequisite: ASLD 502 or ASLD 702 with minimum grade of B or instructor approval.

ASLD 605. Interpreting: English to ASL. 3 Credits.
This course provides an introduction to real-time interpreting with an emphasis on English source materials through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 805. Prerequisite: ASLD 502 or ASLD 702 with minimum grade of B or instructor approval.

ASLD 606. Interpreting: Diverse Communities. 3 Credits.
This course examines language, culture and identity and the implications when interpreting among diverse populations. Students will apply interpreting theories, decision-making and reflective practice to both monologue and dialogic materials in both ASL and English. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 806. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 607. Ethics and Professionalization for Interpreters. 3 Credits.
This course examines ethics as it relates to the work of interpreting through study of ethical codes of conduct, models of decision-making and elements of becoming an ethical professional. Students will come to understand the complexities of ethical decision-making and the importance of self-awareness, reflective practice and responsibility as they consider implications on micro and macro levels. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 807. Prerequisite: ASLD 603 or ASLD 803 or instructor approval.

ASLD 608. ASL/English Interpreting Observation Practicum. 1-6 Credits.
This practicum requires a minimum of 50 hours of observation, shadowing, teaming, professional responsibilities, duties, and/or activities (e.g., scheduling, preparation, invoicing, meetings, and in-service training) in authentic settings where interpreters are employed. Discussion and analysis will occur with instructor and peers on-line and in-person throughout the semester. Prerequisite: ASLD 502 or ASLD 702 with a minimum grade of a B or instructor approval.

ASLD 609. Practicum in American Sign Language Interpreting. 1-6 Credits.
This practicum requires 250 hours of field experience which may include observation, shadowing, teaming, professional responsibilities, duties, and/or activities (e.g., scheduling, preparation, invoicing, meetings, and in-service training) in authentic settings where interpreters are employed. A minimum of 90 hours will be direct provision of interpreting under the supervision of a certified interpreter. Discussion and analysis will occur with instructor and peers on-line and in-person throughout the semester. Students will consult with their advisor prior to enrolling in the course. Students are required to complete a minimum of 3 credit hours to complete the ASLD 609 requirements. This 250 hour practicum may be completed in one semester by enrolling in 3 credit hours, or can be completed over multiple semesters. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 809. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805, ASLD 608 or ASLD 808 with a minimum grade of a B, and completion of an interpreting proficiency exam or instructor approval.

ASLD 610. Psychological Effects of Interpreting. 3 Credits.
This course examines both affective and cognitive psychological effects on interpreting practitioners. The importance of self-care, reflective practice, case-conferencing; as well as vicarious trauma, compassion fatigue, role-space, power and privilege are among topics discussed. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 810. Prerequisite: ASLD 502 or ASLD 702 or instructor approval.

ASLD 611. Introduction to Deaf Studies. 3 Credits.
Students in the course will learn about the world of the deaf in America, deaf culture, the education of deaf children, useful technology, and the integration of deaf people into the American society. This introductory

course is for students interested in fields, such as audiology; speech-language pathology; medicine; education; school, rehabilitation and mental health counseling; psychology; interpreting; ASL and deaf studies; and for anyone with a deaf person in his or her life. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 311. Prerequisite: Graduate standing or Instructor permission.

ASLD 612. Intersectionality and Deaf Communities. 3 Credits.
This course brings students to the next level of understanding of the impact and role of various identities within the Deaf communities on the international and national levels, following the framework of intersectionality. Intersectionality conceptualizes the various identities, ethnicities, linguistic uses and experiences of persons, groups of people, or social problems in the world of deaf. Intersectionality looks at deaf people's overlapping identities and experiences in order to understand the complexity of prejudices they face due to their deaf, race, class, gender, sexual orientation, religion, and other identity markers. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 312. Prerequisite: Graduate standing or Instructor permission.

ASLD 613. Social Justice and Allyship with Deaf Communities. 3 Credits.
Students are introduced to the concept of allyship as one of the tenets of social justice and the process of allyship and social justice in the Deaf communities. Allyship involves support and empowerment of individuals or people experiencing oppression. Within the Deaf communities, there are varieties of Deaf individuals or peoples, such as Deaf Blacks, Deaf Native Americans, and LGBTQI. Students will learn what it means to be an ally, a process of social justice. This course is offered at the 300 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 313. Prerequisite: ASLD 311, ASLD 611 or Instructor permission.

ASLD 614. Historical Foundations of Deaf Education. 3 Credits.
This course engages in the study of the development of deaf educational policy, practice, and theory in relation to changes in social institutions and thought regarding language, education and cultural and medical models in the education of and for the deaf. It focuses on the analysis of contemporary deaf educational problems in the light of historical perspectives. This course is offered at the 400 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 414. Prerequisite: Graduate standing or Instructor permission.

ASLD 615. Business Practices for Interpreters. 3 Credits.
This course will provide students an introduction to business practices for interpreters. Concepts explored will include resume development, interview skills, invoicing, record keeping for tax purposes, certification maintenance and licensure renewal, etc. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 815. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 616. Interpreting: Dynamic Paralinguistic Demands. 3 Credits.
This course examines a variety of paralinguistic demands in the context of interpreting. Types of demands will include emotional communication, accents, regional dialects, physical and mental factors (Cerebral Palsy, injuries, etc.), fast paced communication, etc. Students will apply interpreting theories, decision-making and reflective practice to both monologue and dialogic materials in both ASL and English. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 816. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 626. Topics in ASL Vocabulary and Discourse: _____. 3 Credits.
This course will expand the interpreter training students' vocabulary related to specialized fields and technical contexts. Students will enhance terminology in medical, mental health, education, religion, sex, drugs/alcohol and strong language/culturally rich ASL. Students' development of comprehension and production skills in common formal and informal settings will be emphasized. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 826 if topic is the same. Prerequisite: ASL IV or instructor approval.

ASLD 628. Special Topics in Deaf Studies: _____. 3 Credits.
Students will gain an in-depth understanding of the social life of deaf people by choosing an area of focus. Since this is a special topics course, students, interested in gaining knowledge through research about deaf social life, will choose a timely area of study in a field, such as anthropology, economics, geography, history, political science, psychology, and sociology. Through an individualized course design, students may choose the approach of immersion in Deaf community, defined literature review, or other activity to gain an in depth understanding. This course is offered at the 400 and 600 level with additional assignments at the 600 Level. Not open to students with credit in ASLD 428 if topic is the same. Prerequisite: Graduate standing or instructor permission.

ASLD 631. Advanced American Sign Language Literature. 3 Credits.
This course analyzes and compares the various genres of American Sign Language literature. ASL poetry, narrative, humor, as well as written work by Deaf individuals and other language devices will be examined and discussed. Students will create and evaluate original work illustrating the similarities and uniqueness of ASL. Students will become familiar with well-known contributors such as: Clayton Valli, Patrick Graybill, Ella Mae Lentz, and the like. Research articles pertaining to ASL or Deaf Literature will be critiqued and discussed. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 831. Prerequisite: ASLD 530 or ASLD 730.

ASLD 638. Topics in Interpreting: _____. 3 Credits.
This course provides the opportunity for experimentation with innovative course content and learning strategies in accordance with guidelines established by faculty. Topics include interpreting in specialized settings, current trends, etc. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 838 if topic is the same. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 701. Introduction to the ASL/English Interpreting Profession. 3 Credits.
This course provides an introduction to interpreting as an occupation. Students will come to understand the history of interpreting along with the importance of interpersonal communication skills, professional ethics, parameters of responsibilities, community resources and legal ramifications as they relate to the interpreter. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 501.

ASLD 702. Theories of Interpreting: Co-Constructions of Meaning. 3 Credits.
This course provides an introduction to current theories in the processes of translation and interpreting through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and

apply several theoretical constructs as they perform intra- and inter-lingual exercises. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 502. Prerequisite: ASLD 501 or ASLD 701 and ASLD 521 or 721 with a minimum of a C; B recommended or Instructor Approval.

ASLD 705. American Sign Language V (ASL V). 3 Credits.
This course is the expanded study of ASL IV with emphasis on increased conversation skills, vocabulary, storytelling, knowledge of Deaf culture and the Deaf community. Vocabulary is enhanced through the introduction of various content areas dealing with current events, world affairs, literature, the arts and abstract ideas. Students participate in-group discussions, speculate, make analogies, give instructions, and express feelings and intentions. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 505. Prerequisite: ASL IV with minimum grade of C or instructor approval.

ASLD 706. American Sign Language VI (ASL VI). 3 Credits.
This course is continuing from ASLD 705 ASL V. Students focus on discourse, variation in sign language use, and understanding how the Deaf community is part of a linguistic and cultural minority. Topics that will be covered include perspectives on Deafhood, attitudes toward Deaf people and signed languages, technology and communication. Students will expand on vocabulary by working on areas of advanced subject matter, application of non-manual markers, use of classifiers, and proper pronominalization. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 506. Prerequisite: ASLD 505 or ASLD 705 with minimum grade of C or instructor approval.

ASLD 720. American Sign Language Linguistics. 3 Credits.
In this course, students take an analytical approach to language and the field of linguistics as it applies to American Sign Language. ASL phonology, morphology, syntax, semantics, bilingualism, language use and usage will be examined and discussed. Language samples will be viewed and analyzed for evidence of different language structures and forms. Students will also read and critique research articles pertaining to ASL and other signed languages. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 520. Prerequisite: ASL IV or instructor approval.

ASLD 721. Discourse Analysis of ASL. 3 Credits.
This course focuses on analysis of ASL Discourse structure and features, such as use of space for cohesion, depiction, discourse markers, and use of classifiers. The course also focuses on the use of ASL discourse in formal and informal settings. Students study the genres of dialogues, public speaking, artistic expression, debate, persuasive and narrative styles in ASL. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 521. Prerequisite: ASL V with a minimum grade of B or instructor approval.

ASLD 723. ASL Pragmatics and Syntax. 3 Credits.
This course will focus on the study of syntactic structure and its interaction with meaning. Word order, lexical categories, sentence types, clause structure, topicalization and sentences with transitive, intransitive and agreement verbs are studied. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 523. Prerequisite: ASLD 520 or ASLD 720.

ASLD 724. Visual-Gestural Communication. 3 Credits.
Students will develop capabilities in non-verbal communication and visual gestural communication utilizing the study of gestures as a form of communication and basis for visual language. Emphasis is on learning to think visually in pictures and building production and comprehension communication skills. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 524. Prerequisite: Graduate standing or Instructor permission.

ASLD 730. American Sign Language Literature. 3 Credits.
This course will provide basic introduction, discussion, and demonstration of literature in American Sign Language (ASL). Such literature involves ASL Poetry, ASL Storytelling/ Narratives, Deaf Humor, Deaf Folklore and other genres that have been passed on from one generation to another by culturally Deaf people. Students will receive, analyze and retell a variety of ASL literature. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 530. Prerequisite: ASL IV or instructor approval.

ASLD 788. Internship in American Sign Language and Deaf Studies. 1-3 Credits.
This course provides opportunities for students to have direct interaction with Deaf, Hard of Hearing, Deaf Blind community members in order to apply cultural, linguistic and power/privilege concepts learned in the classroom. Students must complete a minimum of 50 hours per credit hour. Schedule will be determined by student and instructor. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 588. Prerequisite: Instructor approval.

ASLD 789. Research Experience in American Sign Language and Deaf Studies. 3 Credits.
This course guides the students in reading, understanding and evaluating current research in ASL, Deaf Studies, ASL/English interpreting and related fields. Students will learn how to publish a paper and present a poster on a chosen topic of their interest. This course is offered at the 500 and 700 level with additional assignments at the 700 Level. Not open to students with credit in ASLD 589. Prerequisite: Instructor approval.

ASLD 803. Interpreting: Mediated Interactions in Communications. 3 Credits.
This course provides an introduction to real-time interpreting in mediated interaction contexts through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories, decision-making and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 603. Prerequisite: ASLD 501 or ASLD 701, ASLD 502 or ASLD 702 with a minimum grade of B or instructor approval.

ASLD 804. Interpreting: ASL to English. 3 Credits.
This course provides an introduction to real-time interpreting with an emphasis on ASL source materials through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 604. Prerequisite: ASLD 502 or ASLD 702 with minimum grade of B or instructor approval.

ASLD 805. Interpreting: English to ASL. 3 Credits.
This course provides an introduction to real-time interpreting with an emphasis on English source materials through a lens of meaning-based analysis and co-construction of meaning. Students will come to understand and apply theories and engage in reflective practice. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 605. Prerequisite: ASLD 502 or ASLD 702 with minimum grade of B or instructor approval.

ASLD 806. Interpreting: Diverse Communities. 3 Credits.

This course examines language, culture and identity and the implications when interpreting among diverse populations. Students will apply interpreting theories, decision-making and reflective practice to both monologue and dialogic materials in both ASL and English. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 606. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 807. Ethics and Professionalization for Interpreters. 3 Credits.

This course examines ethics as it relates to the work of interpreting through study of ethical codes of conduct, models of decision-making and elements of becoming an ethical professional. Students will come to understand the complexities of ethical decision-making and the importance of self-awareness, reflective practice and responsibility as they consider implications on micro and macro levels. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 607. Prerequisite: ASLD 603 or ASLD 803 or instructor approval.

ASLD 808. ASL/English Interpreting Observation Practicum. 1-6 Credits.

This practicum requires a minimum of 50 hours of observation, shadowing, teaming, professional responsibilities, duties, and/or activities (e.g., scheduling, preparation, invoicing, meetings, and in-service training) in authentic settings where interpreters are employed. Discussion and analysis will occur with instructor and peers on-line and in-person throughout the semester. Students will consult with their advisor prior to enrolling in the course. Each credit hour requires at least 50 hours of field experience. Prerequisite: ASLD 502 or ASLD 702 with a minimum grade of a B or instructor approval.

ASLD 809. Practicum in American Sign Language Interpreting. 1-6 Credits.

This practicum requires 250 hours of field experience which may include observation, shadowing, teaming, professional responsibilities, duties, and/or activities (e.g., scheduling, preparation, invoicing, meetings, and in-service training) in authentic settings where interpreters are employed. A minimum of 90 hours will be direct provision of interpreting under the supervision of a certified interpreter. Discussion and analysis will occur with instructor and peers on-line and in-person throughout the semester. Students will consult with their advisor prior to enrolling in the course. Students are required to complete a minimum of 3 credit hours to complete the ASLD 809 requirements. This 250 hour practicum may be completed in one semester by enrolling in 3 credit hours, or can be completed over multiple semesters. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 609. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805, ASLD 608 or ASLD 808 with a minimum grade of a B, and completion of an interpreting proficiency exam or instructor approval.

ASLD 810. Psychological Effects of Interpreting. 3 Credits.

This course examines both affective and cognitive psychological effects on interpreting practitioners. The importance of self-care, reflective practice, case-conferencing; as well as vicarious trauma, compassion fatigue, role-space, power and privilege are among topics discussed. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 610. Prerequisite: ASLD 502 or ASLD 702 or instructor approval.

ASLD 815. Business Practices for Interpreters. 3 Credits.

This course will provide students an introduction to business practices for interpreters. Concepts explored will include resume development,

interview skills, invoicing, record keeping for tax purposes, certification maintenance and licensure renewal, etc. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 615. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 816. Interpreting: Dynamic Paralinguistic Demands. 3 Credits.

This course examines a variety of paralinguistic demands in the context of interpreting. Types of demands will include emotional communication, accents, regional dialects, physical and mental factors (Cerebral Palsy, injuries, etc.), fast paced communication, etc. Students will apply interpreting theories, decision-making and reflective practice to both monologue and dialogic materials in both ASL and English. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 616. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

ASLD 826. Topics in ASL Vocabulary and Discourse: _____. 3 Credits.

This course will expand the interpreter training students' vocabulary related to specialized fields and technical contexts. Students will enhance terminology in medical, mental health, education, religion, sex, drugs/alcohol and strong language/culturally rich ASL. Students' development of comprehension and production skills in common formal and informal settings will be emphasized. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 626 if topic is the same. Prerequisite: ASL IV or instructor approval.

ASLD 831. Advanced American Sign Language Literature. 3 Credits.

This course analyzes and compares the various genres of American Sign Language literature. ASL poetry, narrative, humor, as well as written work by Deaf individuals and other language devices will be examined and discussed. Students will create and evaluate original work illustrating the similarities and uniqueness of ASL. Students will become familiar with well-known contributors such as: Clayton Valli, Patrick Graybill, Ella Mae Lentz, and the like. Research articles pertaining to ASL or Deaf Literature will be critiqued and discussed. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 631. Prerequisite: ASLD 530 or ASLD 730.

ASLD 838. Topics in Interpreting: _____. 3 Credits.

This course provides the opportunity for experimentation with innovative course content and learning strategies in accordance with guidelines established by faculty. Topics include interpreting in specialized settings, current trends, etc. This course is offered at the 600 and 800 level with additional assignments at the 800 Level. Not open to students with credit in ASLD 638 if topic is the same. Prerequisite: ASLD 603 or ASLD 803, ASLD 604 or ASLD 804, ASLD 605 or ASLD 805 or instructor approval.

Courses

BSCI 350. Genetics. 4 Credits. N

Why are related individuals more similar than unrelated individuals and what is the basis for heritable traits? From Mendel's discoveries of the patterns of genetic inheritance, to the study of transmissible hereditary factors, genetics is central to understanding the biological sciences. Topics include molecular genetics and genetic engineering; Mendelian genetics and mapping; control of gene expression; cytogenetics; epigenetics and non-Mendelian genetics; and population and quantitative genetics. Examples are taken from a wide variety of organisms, including viruses, bacteria, plants, fungi, insects, and humans. Not open to students

with credit in BIOL 350. Prerequisite: CHEM 135 or CHEM 175 or CHEM 195 and CHEM 196, with a grade of C- or higher and BIOL 150 or BIOL 151 with a grade of C- or higher; or consent of instructor.

BSCI 351. Genetics Laboratory. 3 Credits.   U
A laboratory course that provides hands-on experience with classical genetics and modern molecular genetics. Experiments involve Mendelian genetics (dominance/recessivity, complementation, segregation, independent assortment) in eukaryotic organisms; recombinant DNA; basic bacterial genetics; polymerase chain reaction; DNA sequencing; and computational genetics. Not open to students with credit in BIOL 405. Prerequisite: Concurrent or prior enrollment in BSCI 350 or BIOL 350.

BSCI 400. Microbiology. 3 Credits.   N
The course focuses on the structure and function of prokaryotic cells and viruses, cultivation, growth and death of bacteria, microbial metabolism, basic immunology, microbial ecology, and the diversity and classification of organisms that the field encompasses. Not open to students with credit in BIOL 400 or BIOL 401. Prerequisite: BIOL 150 or BIOL 151 with a grade of C- or higher and two semesters of college chemistry with a grade of C- or higher, or consent of the instructor.

BSCI 401. Microbiology Laboratory. 3 Credits.   U
The BSL-2 laboratory focuses on developing techniques and skills to grow, manipulate, and handle microscopic organisms (specifically bacteria) using aseptic techniques and various types of growth media and incubation conditions. In addition, students will learn how to use a microscope and perform several immunological tests (such as agglutination and ELISA) to identify microbes. During the course, students will become familiar with many human health and environmentally related bacterial groups and species, some of which are disease causing. Not open to students with credit in BIOL 402. Prerequisite: Previous or concurrent enrollment in BSCI 400 or BIOL 400.

BSCI 416. Cell Structure and Function. 3 Credits.   N
The course focuses on molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Not open to students with credit in BIOL 416. Prerequisite: BIOL 150 or BIOL 151; BSCI 350 or BIOL 350 or BIOL 360; CHEM 130, or CHEM 170, or CHEM 190 and CHEM 191; and CHEM 135, or CHEM 175, or CHEM 195 and CHEM 196; or consent of the instructor.

BSCI 417. Developmental Biology. 3 Credits.   N
A general course designed to introduce students to the developmental biology of animals. Emphasis is placed on understanding how a single-celled fertilized egg develops into a complex multicellular organism by the processes of cell division, differentiation, growth, and morphogenesis. Lectures stress experimental approaches to investigating development, including classic embryology and modern molecular genetics. Not open to students with credit in BIOL 417. Prerequisite: BSCI 350 or BIOL 350 and BSCI 416 or BIOL 416 or consent of the instructor.

BSCI 421. Topics in Applied Biological Sciences: _____. 3 Credits.   N
Lecture instruction and the preparation and presentation of oral and written reports on selected topics from the recent research literature in molecular biosciences. Students may enroll in a given topic only once. Prerequisite: Course work varying with the topic of the seminar; or consent of instructor.

BSCI 430. Molecular Biology Laboratory. 3 Credits.   U

Practical experience in recombinant DNA technology and molecular cloning. Not open to students with credit in BIOL 430. Prerequisite: BSCI 416 or BIOL 416 or a course in biochemistry or microbiology.

BSCI 435. Neurobiology. 3 Credits.   N
The focus for this course will be on the nature of communication among nerve cells and their targets. Topics will include the development, structure and function of nerve cells, chemistry of neurotransmission, processing and integration including the cellular and molecular basis of higher functions and neurological disorders. Not open to students with credit in BIOL 435. Prerequisite: BSCI 350 or BIOL 350 and BSCI 416 or BIOL 416 or consent of the instructor.

BSCI 490. Internship and Practical Applications. 1-6 Credits.   N
This course provides credit for supervised practical experiences in an occupational area of interest. In addition to the work-related activity, students will be expected to complete reading and writing assignments, participate in on-line discussions, and create a final summary of internship accomplishments. Hours of credit earned (1-6) are based on number of hours at internship site and agreement of instructor. Repeatable for up to 6 credit hours, provided the internship experiences are different. Prerequisite: Consent of instructor.

BSCI 503. Immunology. 3 Credits.   N
A molecular and cellular based approach to understanding the immune system by characterizing both the innate and adaptive immune systems and their functions. Emphasis is placed on the adaptive immune response, including humoral immunity and cell-mediated immunity, antigens and antigen recognition, immunoglobulins, B cell and T cell development, activation, and differentiation, and the effector functions of these different cells and branches of the immune system to create a comprehensive response to defend the body against pathogens. Other topics include immune system dysfunction (hypersensitivities, autoimmunity, and immunodeficiencies) as well as vaccine mechanisms. Not open to students with credit in BIOL 503. Prerequisite: BSCI 400, BIOL 400 or BIOL 401, or consent of instructor.

BSCI 506. Bacterial Infectious Diseases. 3 Credits.   N
Explores bacterial infectious diseases from the perspective of how disease is established and the mechanisms that underlie disease, as well as how to treat and prevent infectious disease. Not open to students with credit in BIOL 506. Prerequisite: BSCI 400, BIOL 400 or BIOL 401 with a grade of C- or higher, or consent of instructor.

BSCI 512. Virology. 3 Credits.   N
Lectures and discussions covering the basic nature and characteristics of viruses from a general biological point of view: viruses of bacteria, animals and plants, physical-chemical properties; host cell-viral interactions; mode of replication of DNA and RNA viruses, tumor viruses. Not open to students with credit in BIOL 512. Prerequisite: BSCI 400, BIOL 400, or BIOL 401 with a grade of C- or higher, or consent of instructor.

BSCI 546. Mammalian Physiology. 3 Credits.   N
An intermediate course in the structures, functions, mechanisms, and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Not open to students with credit in BIOL 546. Prerequisite: BIOL 150; BIOL 152 or BIOL 240; and CHEM 330 or consent of instructor.

BSCI 599. Senior Seminar: _____. 1 Credits.   N
A synthesis and discussion of current trends in the biological sciences as it relates to student interests and career paths. Emphasis is placed on providing seniors with an appreciation of the discipline's state-of-the-art and on developing skills for success in the next stage of a career in the biological sciences by using peer-reviewed research papers to work on communication and presentation of scientific topics to different audiences.

Prerequisite: Must be taken in the final year of a degree and students must have completed most of the course work required for one of the degrees in the biological sciences.

BSCI 600. Biochemistry. 3 Credits.   N
Designed to offer the essentials of the chemistry of the constituents of living organisms and the changes these constituents undergo (during life processes) in the human body and other living forms. Not open to students with credit in BIOL 600. Prerequisite: BIOL 150 or BIOL 151 and one semester of organic chemistry.

BSCI 601. Biochemistry Laboratory. 2 Credits.
Theory and methods in the development of protein separation and purification, enzyme structure/function, and enzyme kinetics derived from primary literature searches and readings. Not open to students with credit in BIOL 601. Prerequisite: Corequisite: BIOL 600 or BSCI 600; or consent of instructor.

BSCI 612. Microbiology. 3 Credits.   N
Lectures. Fundamental principles of microbiology with emphasis in physical and chemical properties of the bacterial cell; microbial metabolism, cultivation, growth and death of bacteria; microbial genetics; pathogenesis and immunity, industrially important microorganisms. Meets with BSCI 400, but students will be given additional and more advanced assignments, and will carry higher expectations. Not open to students with credit in BIOL 612. Prerequisite: BIOL 150 or BIOL 151 and two semesters of college chemistry, or consent of instructor.

Courses

BTEC 300. Research Methods in Biotechnology. 3 Credits.   N
An integrated lecture and laboratory course exploring the science and basic laboratory skills used in food science, agricultural science, pharmaceutical science, clinical medicine, animal health, and environmental science. Survey of career opportunities in biotechnology. Guest lectures from field-experts in biotechnology. Prerequisite: BIOL 152; concurrent or prior enrollment in CHEM 330; or consent of instructor.

BTEC 305. Molecular and Microbiological Techniques. 4 Credits.   N

An integrated lecture and laboratory course exploring the science and tools used in microbiology-based fields. A strong focus is placed on developing functional scientific skills required to run an R&D or Production Lab. Students will survey the diversity of microbial life while becoming proficient in the tools that are used extensively in the laboratory. We emphasize hands-on experience with lab techniques applicable to addressing a variety of scientific problems. Specifically, this course will challenge students to apply their knowledge and skills to construct and express recombinant proteins in mammalian cells, purify, and quantitate their products. Prerequisite: Concurrent or prior enrollment in BIOL 350 and BTEC 300; or consent of instructor.

BTEC 310. Scientific Communications. 3 Credits.   N
Theory and practicum exploring communications relevant to careers in science. This course will explore the fundamentals of clear, effective communications in written and oral formats. Students will gain experience communicating in a variety of real-world situations with technical and lay audiences. Particular emphasis will be placed on the communications occurring within the work place setting. Students will also be challenged to build a network with the biotech industries through external events. Prerequisite: ENGL 102; or consent of instructor. Students must be in their junior or senior year of a science-related degree.

BTEC 341. Principles of Bioprocessing Laboratory I. 1 Credits.   N

Laboratory sessions involve use of microbial expression vectors, fermentation systems, and large-scale purification of recombinant protein. Includes bacterial cell culture techniques, principles of bioreactor/fermentation operations and purification techniques, and calibration. Primary goal of this course is to provide students with an advanced background in bacterial upstream and downstream biotechnology. Prerequisite: BTEC 300; BTEC 340 or concurrent enrollment in BTEC 340.

BTEC 400. Applied Immunology. 3 Credits.   N
An integrated lecture and laboratory course exploring the fundamentals of immunology. The course focuses on developing a conceptual knowledge of the constituents and processes of the immune system. Students will develop a functional understanding of how to operate and apply current immunology-based techniques. Laboratory activities will explore the use of immunological tools for research, discovery, and analysis of processes and experimental compounds. Prerequisite: BTEC 300; BTEC 305; or consent of instructor.

BTEC 424. Independent Study in Biotechnology. 3 Credits.   N
Independent project at a related bioscience industry partner or faculty in selected topics of current translational research interest. May be undertaken only with the consent of the major advisor who will guide the research after determining objectives with the interested industry partner or faculty. Prerequisite: Consent of instructor.

BTEC 441. Principles of Bioprocessing Laboratory II. 1 Credits.   N
Mammalian cell culture techniques, principles of bioreactor operations and purification techniques, and calibration. The primary goal of this course is to provide students with an advanced background in mammalian upstream and downstream biotechnology. Prerequisite: BTEC 341; BTEC 440 or concurrent enrollment in BTEC 440.

BTEC 475. Applied Separation Science and Quantitative Analysis. 6 Credits.   N
An integrated lecture and laboratory course exploring the fundamentals of separation science and quantitative analysis of small molecules, peptides, and proteins. Students will be challenged to develop a functional understanding of the theory and application of sample preparation, separation technologies, and methods for quantification. Prerequisite: BTEC 300; or consent of instructor.

BTEC 494. Selected Topics in Biotechnology: _____. 1 Credits.   N
A synthesis and discussion of current trends related to biotechnology. Emphasis is placed on providing students with an awareness of advances on the leading edge of discovery, critically analyzing data, and developing skills for success in the next stage of a career in biotechnology. This course can be repeated for up to 2 credit hours. Prerequisite: Concurrent or prior enrolment in BTEC 300; or consent of instructor. Students must be in their junior or senior year of a biology-related degree.

BTEC 501. Biotechnology Ethics and Responsible Conduct of Research. 3 Credits.   N
Student investigations and discussions of current controversial issues in biotechnology. This course emphasizes thinking about new technologies in a rational and thoughtful way. Prerequisite: BTEC 300.

BTEC 540. Biotechnology Capstone I. 3 Credits.   N
A project-based course that challenges students to develop, plan, execute, and communicate the results of a biotech-related project. Students will be guided through the initial stages of project design, project management, logistics, and technical training necessary to complete their project. This course is the first of a two semester series (BTEC 540 & BTEC 640.) Prerequisite: BTEC 305; BTEC 475; concurrent or prior enrollment in BIOL 600; or consent of instructor.

BTEC 547. Bioanalytical Lab. 2 Credits.   N

Analytical methods used for testing biotherapeutics are examined. Emphasis is placed on assessing protein concentration, purity, identity and activity. The importance of sample processing, throughput and level of validation are explored as samples from upstream processing, downstream processing and final bulk are interrogated. Students also learn key concepts used to validate the performance of analytical methods. Prerequisite: BTEC 300.

BTEC 550. Applied Bioinformatics. 2 Credits.   N

Overview of the fields of bioinformatics and genomics. Topics, tools, issues and current trends in these and related fields are discussed. Principles and practical application of bioinformatics tools in molecular biology, genetics, and electronic medical records are evaluated. The haploid human genome occupies a total of just over 3 billion DNA base pairs. The medical records of a population contain clues concerning better identification and treatment of disease. This information is not contained in books, but stored in electronic databases. This course is designed for life scientists from all fields to introduce them to the power of bioinformatics and enable them to access and utilize biological information in databases for their own research. Prerequisite: BTEC 300; BIOL 570 or MATH 365 (preferred); consent of instructor.

BTEC 599. Biotechnology Internship. 1-6 Credits.   N

Supervised internship at a biotech company; or an independent thesis; or honors thesis with Honors Program. This course can be repeated for up to a total of 6 credit hours. Prerequisite: BTEC 305; BTEC 475; and consent of instructor.

BTEC 630. Biotechnology, Regulation, Quality Control, and Quality Assurance. 3 Credits.   N

An integrated lecture and laboratory course exploring quality control, quality assurance, and regulatory considerations. Hands-on experimentation will develop a functional understanding of protocol design and a practical knowledge of GXP-guided processes. This course will focus on issues relevant to manufacturing, packaging, labeling, testing, and control of pharmaceutical products. Guest lectures from field-experts in the biotechnology industry. Prerequisite: Concurrent or prior enrollment in BTEC 599; or consent of instructor.

BTEC 640. Biotechnology Capstone II. 3 Credits.   N

A project-based course that challenges students to develop, plan, execute, and communicate the results of a biotech-related project. Students will be guided through the execution of their proposed plan with particular emphasis placed on managing scientists, gathering and analyzing data, and instituting quality controls/quality assurance protocols. Students will communicate the results of their project through a combination of an oral presentation and poster. This course is the second of a two semester series (BTEC 540 & BTEC 640.) Prerequisite: BTEC 540; or consent of instructor.

Courses

CRIM 300. Introduction to Criminal Justice. 3 Credits.

This course is an introductory survey of the American criminal justice system. The course provides a background in criminal justice institutions, including law enforcement, courts, and corrections. The course focuses on the process of the criminal justice system and various viewpoints within the process (employees, crime victims, offenders, and the general public).

CRIM 310. Theoretical and Historical Foundations of Criminology. 3 Credits.

This course explores the history and theoretical foundations of criminal justice and criminology. Students will examine the philosophical assumptions and socio-cultural context that make up the field.

CRIM 320. Research Methods and Data Driven Decision Making in Criminal Justice. 3 Credits.

This course provides an introduction to research methods used within criminal justice scholarship. Students will develop an understanding of how data is collected, analyzed, and used as part of the decision making process within organizations and as part of policy development.

CRIM 330. Policing. 3 Credits.

The course explores policing in America, covering the history of policing and law enforcement, contemporary police work, and current issues in police reform. The course will cover police discretion, professionalism, and police-community interactions. Prerequisite: CRIM 300.

CRIM 340. Courts and Sentencing. 3 Credits.

This course explores the history, development, and current processes of dispute resolution and courts in the American system. The course emphasizes activities of lawyers, judges, and related professionals. Current issues of court policy and sentencing practices are also explored. Prerequisite: CRIM 300.

CRIM 400. Law Enforcement Leadership. 3 Credits.

The course covers leadership and management concepts in the context of law enforcement agencies. The course provides an introduction to leadership and management functions including fiscal management, human resources, and strategic planning as well as the organization of decision making and training functions. Students will learn research verified concepts of leadership and management within the context of the United States law enforcement environment. (Same as SPAA 400.)

CRIM 410. Racial Justice and the Criminal Justice System. 3 Credits.

This course explores the intersection of race and the criminal justice system in the United States. Students will explore how race as historically been understood and incorporated into the system and contemporary race related reforms. The course will examine how the criminal justice has influenced racialized communities in the United States as well as how race shapes the experiences of workers within the criminal justice system. Prerequisite: CRIM 300.

CRIM 498. Internship in Law Enforcement. 3 Credits.

Designed to provide criminal justice students an applied learning experience with a relevant law enforcement agency, policy related organization, or non-profit. Students will critically reflect on their experience through academic assignments throughout their internship experience. Prerequisite: CRIM 300.

CRIM 499. Capstone in Criminal Justice. 3 Credits.

Students will engage in an applied, original project that integrates learning across the criminal justice curriculum. Project topics rotate based faculty professional background and current policy and practice foci. Students will analyze data related to an applied policy question and present their final work to a variety of practitioner audiences. Prerequisite: CRIM 300, CRIM 310, CRIM 320, CRIM 330, CRIM 340, CRIM 350.

Courses

EMGT 608. Principles of Engineering Management. 3 Credits.

Principles used by the engineer in managing technology-based organizations, focusing on core management functions. Prerequisite: Senior or graduate standing in an engineering curriculum or consent of the instructor.

EMGT 800. Special Topics in Engineering Management. 1-4 Credits.

Advanced study of a specialized nature representing unique or changing engineering management knowledge.

EMGT 801. Management Theory and Practice for Engineering Managers. 3 Credits.
Foundation for managing in technology-based organizations. Topics include essential management functions, schools of management thought, motivation, and management style.

EMGT 802. Statistical Analysis and Prediction of Engineering Systems. 3 Credits.
Production of required statistical analyses and predictions for engineering and management systems. Content from probability through regression and analysis of variance. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 803. Technological Forecasting and Assessment. 3 Credits.

Methods of technology assessment and forecasting. Topics include scenario analysis, cross-impact analysis, judgmental mental forecasting methods such as Delphi, and foundational time series forecasting methods such as trend projection and auto-aggressive moving averages. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 804. Business Development and Marketing of Professional Services. 3 Credits.
A broad review of the major components of marketing and integration of these components, culminating in students developing marketing plans for services. Theories, principles, and practices of business development and marketing applied to consulting oriented professional engineering and architectural firms.

EMGT 805. Management of Innovation. 3 Credits.
Preparation for managing technological change involving innovation. Topics include essential management functions, innovation types, impact of organizational structure and climate, and change management.

EMGT 806. Finance for Engineers. 3 Credits.
An introduction to finance in technology-based organizations. Topics include financial statements analysis, valuation of future cash flows, capital budgeting, risk and return, capital structure, and working capital management.

EMGT 807. Labor and Employee Relations for the Engineering Manager. 3 Credits.
Foundation for negotiation and administration of labor agreements. Topics include labor relations; human resources management; employment practices in unionized and non-union organizations; and historical, legal, and structural environments influencing collective bargaining processes.

EMGT 808. Quality Management. 3 Credits.
Practical application of total quality management (TQM) concepts from planning through customer acceptance in technology-based organizations, focusing on understanding the concepts of the total supply chain, managerial aspects of quality, and improvement methodologies throughout.

EMGT 809. Personal Development for the Engineering Manager. 4 Credits.
Objectives, theories, and tests of engineering and management ethics and the relationship to personal values, and communications strategies. Development of career and life plans, and personal brand. Strong emphasis on the creation of both written papers and oral presentations.

EMGT 810. Applications of Quantitative Analysis in Decision Making. 3 Credits.
Practitioner-oriented presentation of managing and implementing optimization methods for improving design and decision making. Focus on methods of mathematical programming (linear, integer, and non-lineary),

queuing analysis, and decision analysis. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 811. Engineering Systems Simulation. 3 Credits.
Practitioner-oriented presentation of developing and using discrete-event simulation to improve engineering analysis and design, and management decision making processes, including instruction in a chosen simulation language. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 812. Law and the Design Professional. 3 Credits.
Legal doctrines relating to owners, design professionals, and contractors; contracts, including formation, rights and duties, interpretation, performance problems, disputes, and claims, standards of care and the management of construction claims, duties and obligation of the design professional, the owner, and the contractor; surety bonds and insurance; and sources of law, forms of association, and agency. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 813. Design Project Management in Professional Practice. 3 Credits.
Managing design projects, integrating perspectives of profitability and cost control, client satisfaction, and project team relations. Topics include explanation of a project manager's job via an augmented model of the Blake-Mouton grid. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 814. Leadership Techniques and Methods for the Engineering Manager. 3 Credits.
Formulating and communicating a compelling vision, convincing others to pursue that vision, and marshaling resources and talents. Coaching and public speaking. Improving decision making and communications, earning trust and building momentum, and inspiring and enabling others to excel.

EMGT 815. Business Relationships and Selling Skills. 3 Credits.
Fundamentals of business relationships and professional selling for any technical professional who would like to be more effective in "getting their message across" to external or internal customers. Relationship management, including ethical issues in business relationships. Experimental exercises on conducting and evaluating dialogues/presentations with customers, internal audiences, and upper management.

EMGT 817. Mathematics for the Engineering Manager. 3 Credits.
Comprehensive math course addressing engineering managers' need for a greater understanding of mathematical concepts.

EMGT 818. Advanced Mathematics for the Engineering Manager. 2 Credits.
Supplements Engineering Management students' mathematical skills and knowledge as relevant to career needs.

EMGT 820. Developing the Engineering Manager. 3 Credits.
Integrating essential concepts and effective practices in communication, management, and leadership with the application of key organizational resources for enhanced management performance. Emphases on working with and through others, on useful human resources-oriented knowledge and skills, and on working with human resources professionals.

EMGT 821. Strategic Analysis of Technology Projects. 3 Credits.
Strategic assessment of developmental projects, focusing on the proposed product or service, the organization, project details, and the environment. Topics include application of financial figures of merit, feasibility of competing projects, decisions under uncertainty, risk vs return, and forecasting. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 823. Management of Internal Engineering Projects. 3 Credits.

Managing organizations' technology-oriented projects, both as inside staff and outside consultant. Covers the entire project life cycle as reflected in the Project Management Book of Knowledge. Practical considerations addressed include material procurement, work with contractors and consultants, selecting software, and managing the project team.

EMGT 824. Product Marketing for Engineering Managers. 3 Credits.

A broad review of the major components of marketing and integration of these components, culminating in students developing marketing plans for new or existing products. Theories, principles, and practices of marketing applied to engineering managers in production or manufacturing. Prerequisite: Admission to the EMGT program or instructor consent.

EMGT 826. Management of New Product Development Projects. 3 Credits.
This course discusses how to properly manage new product development processes using project management tools and techniques. New products are not projects until they are analyzed, planned, scheduled, budgeted, managed, and controlled by managers. It is not typically technical process issues that result in failed new product introductions, but rather a failure in their management and marketing. Prerequisite: PMGT 816 or PFS 804.

EMGT 830. Case Studies in Engineering Management. 2-3 Credits.

A capstone course for the program, integrating the material presented in other courses through analysis of several engineering management case studies. Note: Research paper and presentation are part of the 3 credit hours option. Prerequisite: Must have completed of 21 credit hours in the Engineering Management program.

EMGT 835. Field Project (M.S.). 1-3 Credits.
Research on a problem in engineering management, the satisfactory completion of which satisfies the project requirement for the degree of Master of Science in Engineering Management. Prerequisite: Must have completed of 21 credit hours in the Engineering Management program, including EMGT 810 and EMGT 821.

EMGT 840. Systems Approach to Engineering. 3 Credits.
Formal methods and processes in bringing complex systems into being, and improving existing systems. Topics include formal specification methods, definition of customer needs, systems life cycles, value-to-value analysis, and management of the systems engineering process.

EMGT 845. Service Management for the Engineering Manager. 3 Credits.
Managing service-oriented organizations. Covers a wide array of industries, addressing service management from four primary perspectives: the basics of service science, the customer encounter, managing service operations, and the exceptional customer experience.

EMGT 850. Environmental Issues for Engineering Managers. 3 Credits.
Survey of environmental problems and their solution, and environmental regulations. Topics include the quantity and quality of various types of pollutants emitted to various media, and the risks posed by these pollutants; the regulatory process; and historical perspective, including pollution generation (sources), transportation, fate and effects.

EMGT 860. Special Problems in Engineering Management. 1-4 Credits.
Original independent research on engineering management problems or subjects of immediate interest. May be repeated for credit to a maximum of four hours. Prerequisite: Approval of instructor.

EMGT 862. Manufacturing Systems Integration. 3 Credits.
Engineering and management-specific aspects of manufacturing and information systems integration. Engineering topics include agile, flexible, intelligent, and advanced manufacturing sub-systems; material handling and identification; vendor-specific automation; communication linkage between sub-systems; network and protocol alternatives; and hardware platform alternatives. Management topics include implementation approaches, quality management systems, long-range planning, support systems, and integration project management.

EMGT 867. Advanced Operations Management. 3 Credits.
Strategic issues and practical application of modern and advanced methods for designing and analyzing manufacturing processes and systems. Topics include: forecasting, product and service design, capacity planning, quality management , inventory management, scheduling, supply chain management, project management and simulation of manufacturing processes, and just-in-time, lean , synchronous, and agile systems.

Courses

HMGT 300. Introduction to Healthcare Management. 3 Credits.
Participants will learn key principles, practices, and personalities of health care management. The content is broadly applicable to healthcare enterprises of every kind: public health organizations, physician practices and clinics, hospitals and health systems, agencies and service organizations, for-profit firms, not-for-profit enterprises, etc. The course will provide an overview of how health care institutions are organized and governed, the role of the employees in these organizations, and the systems designed for their efficient and effective operation.

HMGT 305. Health Policy and Healthcare Systems. 3 Credits.
This introductory course is designed to familiarize students with basic concepts and ideas concerning the distribution of health and illness in society, the organization of the health care system, and the relationship of one to the other. The course will address health disparities, the U.S. health care system and health policy and comparisons to other countries, and the roles of government in health systems and policy.

HMGT 310. Health Communication. 3 Credits.
This course introduces diverse approaches to health communication. Students will learn health communication in a variety of health contexts, ranging from interpersonal communication to public health campaigns. We examine theoretical and conceptual backgrounds in health communication and evaluate examples of health communication practices. Issues include provider-patient interaction, the role of the patient, health organizations, the media and health, and end-of-life concerns.

HMGT 320. Applied Healthcare Law and Ethics. 3 Credits.
This course address fundamental and applied concepts in health sciences and healthcare. Current and past issues in health law and ethics will be addressed, including historical origins and development of health law, cultural concerns, conflict of interest, health information confidentiality issues, human subjects research, and the application of law and ethics in health systems and workplaces.

HMGT 440. Applied Ethics in Clinical Trials and Healthcare. 3 Credits.
This course addresses current and past issues in health ethics for the healthcare manager and clinical trials coordinator, including historical origins and development of health ethics and relevant laws, informed consent and human subjects research, cultural perspectives, conflict of interest issues, health information confidentiality, institutional review boards, individual and organizational ethics, and ethical and legal issues in clinical research/clinical trials. The course will include discussion

of case studies from the public, private, and nonprofits sectors of the industry.

HMGT 450. Economics and Finance of Healthcare. 3 Credits.
This course covers economic and financial concepts relevant to health care management and demonstrates how they are applied to actual situations in the health care industry in the public, private, and nonprofit sectors. It examines general issues of healthcare consumption, supply and demand, and healthcare resource allocation as well as specific concepts of financial management and decision making, budgeting, and revenue management and their application to the health care system. In addition, the course will cover healthcare payment systems and reimbursement methods of various payers in the health services industries.

HMGT 460. Healthcare Law and Regulation. 3 Credits.
The course provides an overview of the primary healthcare laws and regulations for the healthcare manager who needs an understanding of healthcare-related legal issues. It covers the legal framework that governs modern health systems and surveys the laws, statutes, and regulations that govern and direct the provision of healthcare services, including fundamentals of American health law and regulation, privacy law, delivery and quality of medical services, and transactions and liability within the healthcare industry.

HMGT 500. Introduction to Clinical Trials Management. 3 Credits.
This course will provide foundational knowledge for clinical trials coordination and management, including an overview of the clinical and pre-clinical processes involved in setting up clinical trials and the roles and responsibilities of those conducting and administering trial; the processes involved in conducting safe, thorough, and reliable trials; and the steps necessary for completion and evaluation of clinical trials processes. Topics to be addressed the development process for biologic, pharmaceutical, and medical devices products and related regulations, the rationale for design features of Phase I, II, and III trials, participant recruitment, retention, safety, and adherence, techniques for randomization, data collection and endpoints, interim monitoring, validity of a clinical trial, and results reporting. Students will demonstrate an understanding of the mechanics and key regulatory requirements of conducting a clinical trial.

Courses

HSCI 315. Exploring Careers in Health Science. 1 Credits.
Through self-assessment, aligning individual strengths with career pathways, and connecting with industry professionals, students will explore a wide variety of health and science-related careers. This course will outline how to gain formative experiences and utilize networking opportunities to help gain opportunities in the future.

HSCI 320. Principles of Nutrition. 3 Credits.
Applied study of the relationship of normal food and nutrition principles to health promotion in select stages of the lifecycle. Not open to those with credit in HSES 330.

HSCI 340. Introduction to Public Health. 3 Credits.
This course is an introductory course that examines public health issues in the United States and is designed to provide an overview of major health issues that impact the public's health. The course emphasizes the essential services of public health, challenges and strategies for working with communities, and provides an overview of the United States public health system.

HSCI 415. Career Readiness in Health Sciences. 1 Credits.
Through creating a career development plan, students will identify specific, achievable career goals and then design and implement

strategies to reach them. This course will help students identify and articulate marketable skills through written and verbal communication and demonstrate how to convey transferable skills to employers through resumes, cover letters, and interviews in preparation for the capstone experience/internship in Health Science.

HSCI 420. Nutrition Through the Life Cycle. 3 Credits.
The influence of normal physiological changes on nutritional needs throughout the life span. Prerequisite: HSCI 320 or HSES 330 or instructor consent.

HSCI 421. Public Health Nutrition. 3 Credits.
The public health and nutrition concerns and services to maintain and improve the health of people living in the US.

HSCI 422. Nutrition Assessment. 3 Credits.
Methods and tools to screen and assess the nutritional status of individuals. Prerequisite: HSCI 320 or HSES 330 or instructor consent.

HSCI 425. Nutrition Education. 3 Credits.
Principles and practices used for teaching and reaching individuals and groups about nutrition to promote healthy living. Prerequisite: HSCI 320 or HSES 330 or instructor consent.

HSCI 440. Introduction to Epidemiology. 3 Credits.
This course will present the fundamentals of epidemiology including study designs, measures of morbidity and risk, types of research biases and specific epidemiology disciplines. These concepts will be illustrated with various examples of epidemiologic research and through lab exercises.

HSCI 441. Population Health. 3 Credits.
This is an introductory course that provides a population perspective on social determinants of health as well as the distribution of risk factors and disease across populations. It explores population-based approaches to explore how behavioral, social, and environmental factors influence health and methods to reduce these health disparities.

HSCI 445. Introduction to Environmental Health. 3 Credits.
This course is designed to provide a foundation for understanding how the natural and built environment affect human health in industrialized and developing countries by examining the impact of physical, chemical, and biological factors external to humans. Students will gain an understanding of the interaction of individuals and communities with the environment, the potential impact on health of environmental agents, and specific applications of concepts of environmental health. (Same as EVRN 445.)

HSCI 450. Epidemics, Pandemics, and Pestilence. 3 Credits.
This course examines origins, responses, and consequences of major epidemics and pandemics that have affected humanity over time. Spanning from antiquity to present day, this global survey investigates environmental and biological origins of disease, the role of commerce, urbanization, and transportation in the spread of disease, and responses to controlling disease and pandemics. Key diseases and epidemics covered include plague, smallpox, malaria, cholera, influenza, typhus, typhoid, leprosy, and tuberculosis. (Same as EVRN 450.)

HSCI 490. Independent Study. 1-6 Credits.
Directed readings or research project on a topic under the supervision of the instructor. Topic or project to be agreed upon in advance with supervising faculty member. Final report required. Prerequisite: Instructor consent.

HSCI 495. MCAT Preparation Course. 4 Credits.
The MCAT Preparation course is a 4-credit hour elective designed to help students prepare for the Medical College Admission Test. In collaboration with testing services, this course assists students in creating a customized study plan through a robust curriculum, strategies for testing, and in-depth content reviews. Graded on a satisfactory/unsatisfactory basis.

HSCI 498. Pathways in Health Science Careers. 1 Credits.
This course provides an integrated approach through individual pre-health coaching and peer group reflection. Students will explore exercises that identify their individual strengths and align them with career goals. Through creating actionable plans, students will focus on broadening professional experiences and improving underdeveloped aspects of their application for professional programs in the health sciences. By the end of the course, students will have detailed an inventory of their professional experiences and a resume that clearly reflects them. Students will practice articulating their strengths through written materials and designing an entrance exam study plan. Through informational interviews, students will gain a clearer understanding of interprofessional teams and opportunities for alternative pathways in health careers.

HSCI 499. Topics in Health Sciences: _____. 1-3 Credits.
Courses on special topics in Health Sciences. These courses may be lecture, discussions, or readings. Students may select sections according to their special needs. Repeatable for credit if topic varies.

HSCI 521. Advanced Nutrition and Metabolism. 3 Credits.
Building upon the basic principles of nutrition, this course delves more deeply into the biological functions of nutrient and their interaction in the human body. Students will be introduced to the role of nutrition in disease. Prerequisite: HSCI 320 or HSES 330 and HSCI 422, or instructor consent.

HSCI 522. Advanced Sports Nutrition. 3 Credits.
The study of nutrient needs to support optimal performance in sports and exercise throughout the lifespan. Prerequisite: HSCI 320 or HSES 330 and HSCI 422 or instructor consent.

HSCI 545. Advanced Environmental Health. 3 Credits.
This course will build upon principles acquired in the introductory course by presenting advanced concepts on environmental health as novel factors that may constitute a risk to humans. The course provides an advanced understanding of concepts and issues of environmental health, including environmental toxicology and risk assessment, and an in-depth study of urban and rural environmental health issues and agents of environmental health impairment. Students will develop a research project or investigation of an environmental health topic. (Same as EVRN 545.) Prerequisite: HSCI 445 or EVRN 445 or consent of instructor.

HSCI 599. Health Science Capstone. 3 Credits.
The capstone provides students with a broad-based, interdisciplinary educational experience and allows them to integrate and synthesize the knowledge they have gained in their health sciences curriculum. Students gather and analyze data throughout the class, and present their final work to a variety of audiences. Prerequisite: Students must be in their final year of coursework required for one of the degrees in the biological sciences. Restricted to declared Health Sciences majors only.

Courses

ITEC 310. Computer Organization and Platform Technologies. 3 Credits.
Machine-level representation of data, digital logic and digital systems, computer architecture and organization, computing infrastructure, introduction to multiprocessing systems, firmware, hardware and software integration, introduction to intersystems communications, enterprise deployment management introduction to virtual machine emulation, platform technologies. Prerequisite: EECS 210, EECS 268 and PHSX 114 or consent of instructor.

ITEC 312. Emerging Technologies in Cybersecurity. 3 Credits.
Principles and practical hands-on applications of evolving technologies and techniques for rising cyber-attack detection and prevention are examined in this course. Topics include firewalls, virtual private networks, authentication technologies, and access control intrusion. Detection and prevention systems as well as data loss prevention devices and mechanisms will be explored. Students will also learn about evolving security incident and management tools. Prerequisite: EECS 210, EECS 268, and PHSX 114 or consent of instructor.

ITEC 314. Fundamentals of Applied Data Analytics. 3 Credits.
In this course you will develop your data science skills while solving real-world problems. Students will work through the data science process and use unsupervised learning to explore data, engineer and select meaningful features, and solve complex supervised learning problems using tree-based models. Students will also learn to apply hyperparameter tuning and cross-validation strategies to improve model performance.

ITEC 316. Database Applications. 3 Credits.
The purpose of this course is to provide students with fundamental concepts of designing and maintaining database projects from a manager or team lead's perspective. Students will gain the foundational knowledge needed to work with database applications utilizing current development strategies. Students will examine various types of databases with an emphasis on relational design. Students will explore file organization techniques, data tables, and data structures. Consideration of the management of data as a resource will be introduced. Students will analyze business applications for databases, selecting one to complete as a final project. Assignments will investigate such topics as; database terminology, completing field definitions and table specifications, interviewing end users, selecting primary keys, and creating data views. The course will conclude with a look at the future of databases.

ITEC 320. System and Network Administration. 3 Credits.
This course introduces operating systems and network administration and presents topics related to selection, installation, configuration, and maintenance of operating systems and computer networks. Topics to be covered include: Unix and Windows operating systems installation, configuration, and maintenance, server administration and management, client and server services, user and group management and support, software systems installation and configuration, content management and deployment, security management, network administration, backup management and disaster recovery, resource management, automation management, operating systems and Web domain management, operating systems and application version control management. A laboratory component will provide hands-on experience with system and network administration. Prerequisite: EECS 210, EECS 268 and PHSX 114 or consent of instructor. Corequisite: ITEC 310.

ITEC 330. Web Systems and Technologies. 3 Credits.
The objective of this course is to discuss how the Web systems are programmed and maintained and how online pages are created and delivered by Web servers and used by clients. Topics to be covered include: Web systems and technologies, information architecture, digital media, Web development, Web standards, vulnerabilities, social network software, client-side programming, server-side programming, Web services and servers, XHTML, CSS, flash and CGI programming, CSS, Web systems security, JavaScript, PHP, and emerging technologies. Prerequisite: EECS 210, EECS 268 and PHSX 114 or consent of instructor. Corequisite: ITEC 310.

ITEC 340. Computer and Information Security. 3 Credits.
Fundamentals of computer security, security mechanisms, information states, security attacks, threat analysis models, vulnerability analysis models, introduction to cryptography, authentication, intrusion detection, intrusion prevention (firewalls), operating systems security, database security, software security, host hardening, incident and disaster response. Prerequisite: EECS 268 or consent of instructor.

ITEC 342. Information Security Management. 3 Credits.

The objective of this course is to present topics related to the administration and management of information security. Topics to be covered include: security fundamentals, operational issues, cost-benefit analysis, asset management, security risk management, security policies and enforcement, risk avoidance, risk prevention, risk transfer, security services, security forensics, contingency planning, security auditing. A laboratory component will provide hands-on experience with security management and administration. Prerequisite: ITEC 340 or consent of instructor.

ITEC 380. Managing IT Projects. 3 Credits.
The objectives of this course are to cover the fundamental concepts in managing IT projects. Topics include planning, executing, monitoring, controlling, and closing a project, designing a comprehensive project management plan, developing strategies in managing complexity in large projects, and understanding agility in project management. Project management concepts such as planning, scheduling, cost and effort estimation, risk analysis and mitigation, human resources management, communication management, and stakeholder management will be presented in detail. Prerequisite: EECS 268 or consent of instructor.

ITEC 399. Directed Reading in ITEC. 1-4 Credits.
Reading under the supervision of an instructor on a topic in Information Technology. The topic, expected outcome, evaluation criteria, and the number of credit hours must be mutually agreed on by the student and the instructor. Course may not be used to fulfill major elective requirements. Consent of the department required for enrollment. Prerequisite: Instructor permission required.

ITEC 404. Fundamentals of Data Visualization. 3 Credits.
Analysis of data sets is of little use if the information discovered cannot be conveyed to key organizational stakeholders. This course focuses on the best way to communicate the information that the data analysis is trying to tell. Students will learn best practices for telling stories with data and set up data visualizations and dashboards. Students will complete the course with a full understanding of how to communicate data.

ITEC 406. Data Mining and Intelligence. 3 Credits.
Students learn to survey a variety of data mining techniques used in the information technology field. Data mining is the ability to process a data set and make meaning out of its contents. Students will use a statistical programming language to perform data mining techniques using a number of different data sets.

ITEC 410. Software Engineering and Management. 3 Credits.
This course introduces the software development life cycle and key concepts related to software engineering. Topics include software process models, software project management, software requirements engineering, formal and informal modeling, software architecture, software design, coding and implementation, software testing and quality assurance, software deployment, and software evolution. Additional topics such as software metrics and measures, application domains, software engineering standards, and software configuration management will also be presented. This is a project-driven course. Prerequisite: ITEC 380.

ITEC 412. Predictive Analytics and Forecasting. 3 Credits.
This course focuses on the predictive analytics that organizations need to be able to make decisions about current and future events. Students learn about the analytical tools necessary to analyze and develop forecasts for real-world situations. The course prepares learners to help organizations make more effective decisions based on the gathering and analysis of data as well as the use of modern forecasting techniques applied to make intelligent decisions.

ITEC 414. Database Design. 3 Credits.
The objective of this course is to present key concepts related to database design and implementation. Topics to be discussed include: database architecture, relational data model, SQL, database design life cycle, conceptual data modeling, relational database normalization, query processing, transaction processing, database security, and database administration. This is a project-driven course. Prerequisite: ITEC 330.

ITEC 416. System Integration and Architecture. 3 Credits.
This course introduces system integration and architecture. Key concepts to be presented include: system architecture, system requirements, organizational context, acquisition and sourcing, system and component integration, middleware platforms, design patterns, integrative coding, scripting coding, testing and quality assurance, system deployment. Prerequisite: ITEC 410.

ITEC 420. Operating Systems. 3 Credits.
This course introduces operating systems principles and associated key concepts. Topics to be discussed include: processes and threads, concurrency, scheduling and dispatch, memory management, processor management, device management, security and protection, file system, disk scheduling, real-time and embedded systems, fault tolerance, scripting, and an introduction to virtualization.

ITEC 422. Computer Networks. 3 Credits.
Foundations of computer networking with practical applications and network administration, with emphasis on the Internet and wireless public switched telephone network. Topics to be covered include routing and switching, routing algorithms, physical layer, data link layer, network layer, network security, network management, and application areas.

ITEC 424. Network Security. 3 Credits.
This course covers the fundamental concepts, principles, and mechanisms in network and distributed system security. The topics that will be covered include: network security primitives, distributed authentication, key management, secure communication protocols, firewalls, intrusion detection, traffic monitoring and analysis, email and Web security, etc. Prerequisite: ITEC 340 and ITEC 422.

ITEC 426. Cyber Defense and Countermeasures. 3 Credits.
This course explores recent software and hardware tools and technologies for cyber defense. Examination of network-based countermeasures for Encrypting IP data, IPsec, TCP set above the IP, securing web page access with SSL/TLS will be introduced to students. Teams of students will be engaged in practical hands-on applications of recent behavioral analytics and artificial intelligence tools to gain insights into behavioral patterns of users and hackers in cyber-attacks and defense. Prerequisite: ITEC 340 and ITEC 422 or consent of instructor.

ITEC 428. Testing and Vulnerability Analysis. 3 Credits.
This course explores the fundamentals and tools for penetration testing. Students will utilize tools and methodologies for collecting information; recognize faults and vulnerabilities in documentation, software, and computer systems; and exploit and fix defects. Students will participate in teams on practical hands-on analysis of vulnerabilities in web servers and web and mobile applications. Prerequisite: ITEC 340 and ITEC 422 or consent of instructor.

ITEC 429. Digital Forensics. 3 Credits.
In-depth data analysis and reviews of data such as log, system, history and email files on computer systems will be explored. Students will also explore the principles of chain of evidence, electronic document discovery, eavesdropping and entrapment. Hands-on experience with forensic tools for exploring digital evidence and computer crimes will also be provided. Prerequisite: ITEC 340 and ITEC 422 or consent of instructor.

ITEC 430. Human-Computer Interaction. 3 Credits.

This course introduces principles of human-computer interaction. Important topics to be presented include: human factors, human-centered design and evaluation, graphical user interfaces, multimedia system integration, interactive systems development, computer-supported cooperative work, human cognitive skills, accessibility, alternative input/output media, and emerging technologies. Prerequisite: Completion of nine credits of ITEC 300-level coursework or consent of the instructor.

ITEC 440. Cloud Computing. 3 Credits.
This course introduces principles of cloud computing and the business and computing technology trends that enable and necessitate its uses. Cloud computing and its engineering and delivery models, Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS), will be covered. Cloud-based and RESTful web services for developing new applications and offering new services will be discussed. Topics related to cloud computing security, identity, auditing, and authorization management will be presented. The course will be project based and an existing cloud computing platform (e.g., Amazon AWS) will used for projects.

ITEC 450. Social and Professional Issues. 3 Credits.
This course will provide an overview of the history of computing and presents key concepts related to the social and professional aspects of IT. Topics to be covered include: pervasive themes in IT, social context of computing, intellectual property, legal issues in computing, professional and ethical issues and responsibilities, privacy and civil liberties. Prerequisite: Completion of nine credits of ITEC 300-level coursework or consent of the instructor.

ITEC 452. Special Topics in ITEC: _____. 3 Credits.
This course introduces a special topic of current interest in information technology, offered as the need arises. May be repeated for additional credit. Prerequisite: Junior or Senior-level standing or consent of instructor.

ITEC 454. Information Security Law and Policy. 3 Credits.
Students will be introduced to policies for providing identity, privacy, access, and account management security. Students will also learn about policies for incident response, disaster recovery, and governance of information systems. Government security laws and compliance for protecting intellectual property and information systems will be included. Students will participate in teams on practical hands-on activities with security auditing and compliance tools. Examination of computer crime laws and recent security breaches will also be included. Prerequisite: ITEC 340 and ITEC 422 or consent of instructor.

ITEC 490. ITEC Capstone I. 3 Credits.
Capstone is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: Corequisite: ITEC 410.

ITEC 492. ITEC Capstone II. 3 Credits.
ITEC Capstone II is a continuation of ITEC Capstone, is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT that may be in collaboration with an industrial partner. Prerequisite: ITEC 490.

ITEC 494. Cybersecurity Capstone. 3 Credits.
Capstone is a senior level course designed to allow a student to review, analyze, integrate, and apply technical knowledge in a meaningful and practical manner. The student will be expected to complete an approved academic project in IT related to cybersecurity. Prerequisite: ITEC 340 and ITEC 422 or consent of instructor.

ITEC 710. Information Security and Assurance. 3 Credits.
This introductory security course covers a wide range of topics in the area of information and network security, privacy, and risk: the basic concepts: confidentiality, integrity and availability; introduction to cryptography; authentication; security models; information and database security; computer systems security; network security; Internet and web security; risk analysis; social engineering; computer forensics. Prerequisite: Graduate standing in EECS, or permission of the instructor.

ITEC 711. Security Management and Audit. 3 Credits.
Administration and management of security of information systems and networks, intrusion detection systems, vulnerability analysis, anomaly detection, computer forensics, auditing and data management, risk management, contingency planning and incident handling, security planning, e-business and commerce security, privacy, traceability and cyber-evidence, human factors and usability issues, policy, legal issues in computer security.

ITEC 712. Network Security and its Application. 3 Credits.
This course focuses on network-based information and communication systems, and examines network technologies and service applications to provide the students with a comprehensive introduction to the field of network security and its application. The course covers key concepts and critical network security services including authentication and access control, integrity and confidentiality of data, routing, firewalls, virtual private networks, web security, virus protection, and network security architecture and policy development. The students are expected to understand the technical vulnerabilities of networked systems and to develop methods to eliminate or mitigate those vulnerabilities. Prerequisite: IT 710 and one of the following: IT 422, EECS 563, or EECS 780.

ITEC 714. Information Security and Cyber Law. 3 Credits.
The objectives of this course is to present an introduction to the legal and ethical issues and challenges in the information age, to provide a survey of legal and ethical issues introduced by information security, and to discuss individual rights vs. national interests. A coverage of key cyber laws that impact information security and IT professionals and topics related to intellectual property, copyrights, digital forensics, e-surveillance, and e-discovery for legal evidence and lawsuits will be provided. A review of preventative legal management practices in the context of information security (including employee awareness training) will be presented. Prerequisite: IT 710 or instructor permission.

ITEC 746. Database Systems. 3 Credits.
Introduction to the concept of databases and their operations. Basic database concepts, architectures, and data storage structures and indexing. Though other architectures are discussed, focus is on relational databases and the SQL retrieval language. Normalization, functional dependencies, and multivalued dependencies also covered. Culminates in the design and implementation of a simple database with a web interface. Prerequisite: EECS 448 or consent of instructor. Students cannot receive credit for both EECS 647 and EECS 746.

ITEC 780. Communication Networks. 3 Credits.
Comprehensive in-depth coverage to communication networks with emphasis on the Internet and the PSTN (wired and wireless, and IoT-Internet of Things). Extensive coverage of protocols and algorithms will be presented at all levels, including: social networking, overlay networks, client/server and peer-to-peer applications; session control; transport protocols, the end-to-end arguments and end-to-end congestion control; network architecture, forwarding, routing, signaling, addressing, and traffic management, programmable and software-defined networks (SDN);

quality of service, queuing and multimedia applications; LAN architecture, link protocols, access networks and MAC algorithms; physical media characteristics and coding; network security and information assurance; network management.

ITEC 810. Software Engineering and Management. 3 Credits.
Principal concepts in software engineering with a focus on formalism as well as managerial issues; software development models; software process models; software configuration management; software development life cycle activities; project management; planning and estimation; requirements engineering, software architecture, software modular design; software reusability; implementation strategies; testing techniques; software quality assurance; software evolution; metrics and measurements, ethics and professionalism. Prerequisite: Programming experience, preferably in Java or C++.

ITEC 811. IT Project Management. 3 Credits.
Management issues in the creation, development, and maintenance of IT systems; effort and cost estimation techniques; project planning and scheduling; resource allocation; risk analysis and mitigation techniques; quality assurance; project administration; configuration management; organizational issues; software process modeling; process improvement; frameworks for quality software.

ITEC 814. Software Quality Assurance. 3 Credits.
Software quality engineering as an integral facet of development from requirements through delivery and maintenance; verification and validation techniques; manual and automated static analysis techniques; fundamental concepts in software testing; test case selection strategies such as black-box testing, white-box testing; formal verification; unit, integration, system, and acceptance testing; regression testing; designing for testability; models for quality assurance; reviews, inspection, documentation, and standards; industry and government standards for quality. Prerequisite: IT 810.

ITEC 818. Software Architecture. 3 Credits.
Designing architectures; software architectural styles and patterns; architectural components and connectors; architectural modeling and analysis, architectural deployment, designing for nonfunctional properties such as efficiency, scaleability, adaptability, and security; domainspecificsoftware architectures; architecture product lines; architecture description languages (ADLs); standards. Prerequisite: IT 810.

Courses

OMGT 300. Operations Management. 3 Credits.
This course will provide a foundational understanding of operations strategy, process design, capacity planning, facilities location and design, forecasting, production scheduling, inventory control, quality assurance, and project management. Students will learn a framework for systematically examining and understanding operation management issues as well as exploring tools, systems and practices for practical application. Students will discover analytical techniques, processes, and approaches used to solve, prevent and anticipate problems within an organization.

OMGT 310. Enterprise Strategy and Innovation. 3 Credits.
This course will explore enterprise strategic plan development and implementation by addressing concepts of open innovation, strategic plan development, resource considerations, organizational strengths and weaknesses, environmental opportunities and threats, and management considerations. Students will explore theoretical and practical approaches to address a variety of real-world case studies.

OMGT 320. Enterprise Planning and Implementation. 3 Credits.

This course explores planning and implementation of changes, policies, and procedures at an organizational level and learn practical approaches to implementation at a large scale. Students will investigate and test tools and techniques for effective design and management of enterprise projects and programs.

OMGT 330. Innovation Management. 3 Credits.
The course focuses on execution challenges that innovation initiatives face, including resourcing, organization, and planning. Students will explore the processes of innovation management for various sizes of companies utilizing smaller scale, local processes to large scale, globally dispersed innovation processes and teams. Prerequisite: OMGT 310.

OMGT 420. Process Management. 3 Credits.
This course explores concepts, methods, and techniques that support the design, improvement, management, configuration, enactment, and analysis of business processes that deliver lean and customer focused business processes. Students will learn how to organize process improvement initiatives and how to make improvements to work processes. Students will be introduced to techniques for setting organizational priorities for process improvement initiatives and for selecting projects that align with such priorities. Students will be able to understand business process from a management and process analyst perspective, analytical frameworks and general principles for managing business processes. Prerequisite: OMGT 300.

OMGT 440. Ethical Issues in Operations Management. 3 Credits.
This course is designed to provide students with a psychological and philosophical foundations of business ethics, which includes the ability to recognize ethical problems, exposure to many of the ethically sensitive issues facing corporations and managers in business and examining how to reach closure on ethical problems. Students will examine the role of ethics in the relation of business to employees, consumers, and society. Students will explore ethical positions in case study analyses, investigate ethical issues in their own professional lives, and develop and present their solutions for typical ethical problems faced by managers in organizations. Prerequisite: OMGT 300, OMGT 310, OMGT 320.

OMGT 499. Operations Management Capstone. 3 Credits.
The project-based capstone course serves as a culminating experience for this degree. Students will develop an applied workforce project that represents that competencies developed throughout the program. The students will document their project in a written report and present their project during the final oral examination to the Operations Management facility. This course should be taken in the final semester of their BAS in OMGT program. Prerequisite: OMGT 300, OMGT 310, OMGT 320, OMGT 330.

Courses

PFS 300. Introduction to Professional Performance. 3 Credits.
This course provides an introduction to professional performance, including entrepreneurship, media and marketing, brand creation, "influencing," web design, life skills, personal and business finance, communication, exposure to laws related to Title IX, networking, ethics, and career management. Class sessions will feature speakers from varying areas of specialty to provide students an in depth look into their specialty while understanding how each of these components are integrated in professional performance.

PFS 301. Communication in the Workplace. 3 Credits.
This course presents an overview of communication dynamics in the modern increasingly complex, diverse and dispersed modern workplace. Course content and activities will explore the various task, relational and identity dynamics that generate effective communication across a variety of different workplace relationships and situations. Special

consideration will be given to understanding the influence of workplace power dynamics/hierarchies, communication technologies, identities, and cultural differences in delivering effective interpersonal, small group, written and presentation messages. Course activities will help emerging professionals recognize how to leverage their daily communication at work to earn trust, build productive working relationships, and organize collaborative work processes to achieve workplace goals.

PFS 302. Leadership in Practice. 3 Credits.
This course will introduce students to the principal theories of effective leadership, ranging from the "individual star" model to contemporary frameworks of distributive and collaborative leadership. The course draws important distinctions between leadership and management and assists learners in understanding their natural preferences. Through exercises, assignments, lectures, videos, case studies, and discussion, we transform theory into applicable, real-world practice. Students will experience a dynamic, applied, and realistic view of what leadership is like in contemporary organizational life. Topics include strategic thinking, operational excellence, emotional intelligence, navigating change, conflict management, and team communication.

PFS 303. Professionalism and the Workplace. 3 Credits.
This course presents an overview of the importance and challenges associated with professionalism and the workplace expectations regarding demonstrating respect for coworkers, colleagues, and customers, business etiquette and attire, appropriate use of communication tools, and acting in the best interest of the organization, community, and the environment. The basic skills necessary for achieving success in today's challenging work environment are enhanced through this course.

PFS 400. Professional Performance Ethics. 3 Credits.
This course is designed to provide students with a psychological and philosophical foundation of ethics, which includes the ability to recognize ethical problems, exposure to many of the ethically sensitive issues they may encounter in their career, and how to reach closure on ethical problems. Students will explore ethical problems in case study analyses, investigate ethical issues in their own professional lives, and develop and present their solutions.

PFS 410. Personal Finance and Professional Career Management. 3 Credits.
This course will provide the tools to help you better understand and improve the financial and career decisions you make throughout your life and how they impact one another. Students will learn how to analyze the financial effects of spending, investing, and saving at each stage of your career. Students will choose focused learning activities that meet their specific career goals and needs.

PFS 420. Starting and Managing your Performance Career. 3 Credits.
In this course, students will learn about the professional world of professional performance and how to create a career surrounding their athletic, artistic or personal talents. Specifically, those enrolled will be exposed to the multitude of career paths and how to start and manage your career.

PFS 450. Special Topics in Professional Performance: _____. 3 Credits.
This is a variable-topic course allowing students to examine timely professional performance topics. Its purpose is to allow the occasional offering of topics not covered by established courses. These courses may be lecture, seminars, or readings. Students may enroll in more than one topics course, but may enroll in that topic only once.

PFS 490. Internship Exploration. 1-6 Credits.

PFS 490 Internship Exploration – This course provides credit for supervised practical experiences in an area of interest. In addition to the work-related activity, students will be expected to complete reading and writing assignments, participate in on-line discussions, and create a final summary of internship accomplishments. Hours of credit earned (1-6) are based on number of hours at internship site and agreement of instructor. Repeatable for up to 6 credit hours, provided the internship experiences are different. Prerequisite: Consent of instructor.

PFS 499. Professional Performance Capstone. 3 Credits.
The project-based capstone course serves as a culminating experience for this degree. Students will develop an applied workforce project that represents that competencies developed throughout the program. The students will document their project in a written report and present their project during the final oral examination to the Professional Performance facility. This course should be taken in the final semester of their program. Prerequisite: Consent of instructor.

PFS 730. Writing and Speaking for Decision Makers. 3 Credits.
This courses is an advanced level communication skills course focused on developing and refining managerial-level business writing and presentation skills. Course assignments and activities provide practice and expert feedback on these core professional skills. Course content offers research-based insights to develop one's ability to assess various stakeholders' needs, motivations and values, while also addressing critical situational needs and relational concerns in a variety of workplace communication scenarios. Participants learn to craft communication that is thoughtful, strategic, research-backed, and designed to signal their readiness for additional career development opportunities.

PFS 741. Intercultural Communication in Organizations. 3 Credits.

This course explores the intercultural communication dynamics that influence individual work satisfaction, workplace relationships, team effectiveness and project outcomes across an increasingly global workforce. Course content and activities will focus on understanding how national and regional cultural differences influence group and team dynamics. Special focus will be on de-centering one's own cultural norms and personal preferences and adapting to engage in communication that signals respect for cultural difference at work. Topics will include developing personal awareness, appreciation and skills required to respectfully and effectively engage difference related (but not limited) to language, time, gender, family status, religion, and the role of organizational hierarchies in shaping colleagues' communication at work. Course will focus on how to adapt to these areas of difference and using strategies for integrating flexibility while collaborating with diverse colleagues to achieve shared organizational goals.

PFS 801. Interpersonal and Persuasive Communication Skills for Managers. 3 Credits.
This course examines how communication practices and patterns influence employee engagement, team productivity, organizational cultures, and individual career development. In short, this course centers communication as the primary way people organize, build relationships and get things done in organizations. Factors influencing what makes communication "effective" in various contexts and relationships will be identified, providing you a toolkit for enhancing team effectiveness and business outcomes, as well as facilitating your individual career advancement. Course activities and assignments are designed to build self-awareness and global workplace communication competencies, with a focus on situational awareness and personal adaptability. The course is designed to differentiate KU graduates by providing a powerful set of research-based communication concepts and frameworks for use in diagnosing and meaningfully addressing the most common work and

career-related challenges facing mid-career professionals in today's increasingly complex, diverse and ever-changing organizations.

PFS 802. Managing Teams and Leading People. 3 Credits.
This course examines the foundational body of knowledge relating to effective organizational management and leadership. Beginning with an exploration of the essential differences between management and leadership, the course then addresses such topics as leading with emotional intelligence, change management, organizational culture, individual and team performance coaching and management, innovation theories, stakeholder analysis, and personal brand development.

PFS 803. Financial Management for Professional Success. 3 Credits.
This course introduces the concepts and applications of financial planning and management for professional managers working in diverse professional environments. Topics include time value of money, asset valuation, capital structures and budgeting, financial analysis and cash flow, and project and operations decision-making. This "finance for non-financial managers" course equips managers with the fundamental knowledge and skills to operate a unit in collaboration with their organization's financial professionals.

PFS 804. Project Management for Professionals. 3 Credits.
This course introduces the project management body of knowledge with a focus on developing project management plans for use in diverse professional environments. The project life cycle is covered from inception to closeout with an emphasis on project scope, budget, schedule, and risk; and practical application of stakeholder, procurement, resource, quality, and communication management. The course will be valuable to managers of units, teams and organizations either to directly manage projects of various types or have a strong understanding of what to expect from formal project managers.

PFS 810. Organizational Communication Strategies. 3 Credits.
This course addresses key communication processes in organizations, including developing effective workplace relationships and nurturing organizational cultures and team work in increasingly complex, global organizations. Topics include change management communication strategies, how organizational hierarchies and other structures influence communication flows, the role of different social group identities in shaping individual's experiences within organizations, and managing virtual teams. Students will be able to identify the influence of organizational culture, power dynamics, and communication ethics on workplace communication patterns and outcomes, and will craft communication strategies to enhance workplace cultures, project outcomes and personal leadership communication skills.

PFS 821. Employee Onboarding and Role Development. 3 Credits.

This course explores the communication dynamics that facilitate employee onboarding and integration for new hires and newly promoted supervisors, managers and leaders. Content and activities will explore the challenges and opportunities embedded in the socialization process for individuals and organizations, including the hidden communication complexities of role transitions, including navigating expectations of colleagues, understanding the dynamics of the personal identity shift one must navigate during transition, and balancing the desire to affect change with the pressure to assimilate into organizational expectations. Participants will design an onboarding and communication plan for a workplace socialization need of their choice.

PFS 823. Organizational Change and Communication. 3 Credits.
This course explores communication processes embedded in organizational change, with a specific focus on identifying the needs, expectations and values of various stakeholders who will be participating in and/or affected by an organizational change. Course focuses on understanding change as an inherently communicative process (rather than only a business strategy). Participants will learn to identify a full range of internal and external stakeholders, recognize the root causes of stakeholder concerns, and understand common sources of "resistance" to change at every level of an organization. Participants will develop a comprehensive communication plan and sample communication documents to engage the full range of stakeholders in change planning, implementation and long-term integration into organizational culture and structures related to a change of their choice.

PFS 825. Communication Practices for Inclusive Organizations. 3 Credits.
This course examines the challenges and opportunities facing individuals in organizations. Weekly discussion and assignments will examine the challenges and opportunities employees/members face based on navigating organizational structures, workplace cultures and leadership actions. Participants will develop strategies to build inclusive workplace around race, gender, age, sexuality, (dis)ability, socioeconomic status, and other social identities. Challenges and opportunities related to intersectional identities will be explored as well. The class has an applied, practical focus featuring weekly guest speakers and focus on becoming more aware of forms of personal privilege and becoming advocates for meaningful change within organizations.

PFS 827. Communication Ethics for Managers and Leaders. 3 Credits.
This course examines current leadership communication and workplace culture issues through a lens of communication ethics. The course uses several frameworks for identifying ethical issues in the communication used to organize people and ideas within organizations and communities. Communication ethics and related power dynamics shaping communication processes and outcomes will be explored related to employee engagement campaigns, corporate communication tactics, leadership and management communication practices, conflict resolution practices within organizations, and communicating organizational change. Participants will gain skills and confidence to recognize and actively engage with the communication ethics concerns embedded in today's daily workplace interactions, leadership and management communication, decision-making processes, organizational policy creation, and corporate communication initiatives.

PFS 829. Communicating Across Workplace Generations. 3 Credits.
This course explores the dimensions of the popular "generations" framing of age-related diversity in the modern workplace. This course will unpack and challenge the concept of "generations" and its implications for workplace cultures, policies, leadership and career development practices. Course will explore different types of generations that emerge within organizations related to factors like workplace cohort, team dynamics and individual lifestage. Organizational communication assumptions, patterns and practices will be centered as a factor in shaping the individual experiences of these generational members, with the goal of identifying new strategies for stimulating meaningful, productive cross-generational working relationships, mentoring and collaboration across organizations.

PFS 831. Case Studies in Organizational Communication. 3 Credits.
This course explores the ways we organize ourselves through communication, both within and beyond traditionally-structured organizations. We'll examine traditional, new and emerging messages, practices and structures used to organize people across traditional boundaries. The course will explore "hidden" forms of organization

that shape our personal experiences and public discourse, ranging our informal professional networks to a variety of online "dark web" groups organizing followers around non-traditional belief systems. Discussion will explore the role of loss of trust in formal institutions, technology and social media, and groups seeking to intentionally disrupt and dismantle traditional forms of organization. Participants will recognize the full range of ways communication can be used to (dis)organize groups, create new organizations and social movements, and influence public discourse and organizations.

PFS 833. Communication and Team Development. 3 Credits.
This course will explore team development through the lens of communication, exploring requisite individual teaming skills, team-level processes and organizational-level norms and structures. The course will provide research-based insights to help team managers and leaders facilitate more effective team onboarding, decision-making and conflict management processes across organizational structures, while recognizing individual difference and utilizing inclusive communication practices that fuel rewarding teamwork, positive project outcomes and career development for all. Course content will discuss necessary forms of organizational-level sponsorship, structures, technology access, and training necessary to support team communication and development. This course will be especially helpful for those serving in (or seeking to advance into) team management and leadership roles.

PFS 835. Interpersonal Communication Skills at Work. 3 Credits.
This course provides research-based interpersonal communication insights for developing personal effectiveness across increasingly global, complex and resource-constrained organizations. Course content and activities will help professionals work on personal skill development related to building effective working relationships, initiating difficult conversations, navigating conflict, building internal and external networks, effectively advocating for self and others, and demonstrating a commitment to personal communication ethics. Insights and skill practice will focus on developing a personal communication skillset for working effectively across various situations, cultural contexts and stakeholder groups. Content will be helpful for both individuals and managers/leaders recognizing the need to further develop their interpersonal skills in various workplace settings.

PFS 837. Communication Strategies for Remote and Hybrid Teams. 3 Credits.
This course explores the communication challenges and opportunities presented by remote work in geographically dispersed organizations. Course content and activities will explore how leaders, managers and front-line staff can utilize communication-based relationship-building skills, as well as project planning, meeting facilitation and technological tools to build productive working relationships, stronger teams and optimal productivity across multiple workplace structures, cultures, project teams, time zones and geographies. Participants will gain valuable insights about the human needs embedded in virtual work as well as gain practical skills needed for leading successfully in a virtual work environment.

PFS 839. Conflict Dynamics in Organizations. 3 Credits.
This course explores the multiple sources and levels of conflict in organizations. Course content will help participants recognize and address the historical and cultural roots of conflict in organizations. Course activities will help develop the individual insights and communication skills necessary to initiate meaningful change to conflict management processes within teams and organizations, with the goal of facilitating more equitable, fair and trusting work relationships, communication flows, and positive outcomes for all. This course will be especially helpful for those looking to advance into management and leadership positions.

PFS 850. Interview-Based Research in Organizations. 3 Credits.
The course provides hands-on practice designing an interview or focus-group based research project. Activities build skills related to project design, managing sponsor and stakeholder pressures, interview questions crafting, managing interview dynamics, ensuring confidentiality and research ethics, conducting data analysis, crafting findings, report writing, delivering a final presentation to stakeholders. Major course activity involves working with sample data and crafting a future research proposal for an organization selected by the participant.

PFS 860. Exploring Communication Theory. 3 Credits.
This course involves exploring the theories that provide deeper insight into underlying individual, group, organizational and societal level factors influencing communication patterns, practices and policies in organizations. This course provides a solid understanding of the unique value of the communication studies lens for examining common workplace communication issues at the individual, team and organizational levels. Participants will leave the course with a toolkit of organizational communication concepts and theories for better understanding "what's really going on here," providing a powerful set of insights for identifying, unpacking and addressing common issues related to coworker relationships and conflict, managerial and leadership communication, diversity and inclusion, and workplace culture, to name just a few.

PFS 875. Special Topics in Organizational Communication. 3 Credits.
The specific topic of this course may vary from semester to semester; course will explore a variety of current issues related to organizational culture and communication, with a focus on translating research into practice within organizational roles.

PFS 895. Independent Study in Organizational Communication. 1-3 Credits.
This course is reserved for students working independently with faculty supervision to study a topic of interest. The specific topic and related readings, assignments and meeting schedule will be worked out between the faculty member and individual student(s) and pre-approved by the faculty member leading the independent study. A permission code is required to register for PFS 895 course hours.

PFS 897. Comprehensive Exam Prep. 1-3 Credits.
A culminating course to prepare students for their Organizational Communication Masters comprehensive exam. Students will work with faculty to prepare materials for the comprehensive exams upon completion of all course work. Prerequisite: Minimum 20 credit hours completed in program.

PFS 898. Capstone Project in Organizational Communication. 1-3 Credits.
This course is reserved for students working on the capstone project required to complete the degree in organizational communication. The specific topic, research method, organizational sponsor, and meeting schedule will be worked out between the supervising faculty member and individual student(s). The capstone project must be pre-approved by the faculty member supervising the capstone project. Prerequisite: Consent of department or instructor.

Courses

PMGT 305. Foundations of Project Management. 3 Credits.
This course offers students an opportunity to learn how to approach project management (PM) and understand PM essential concepts from both a theoretical and applied perspective. Students will learn to identify the elements of the PM life cycle, understand PM processes, comprehend and become familiar with basic PM tools and techniques,

utilize techniques for optimizing project results, manage stakeholder communications, understand the principles of team leadership, and identify the career paths in the PM profession. Prerequisite: Junior/Senior standing or department permission.

PMGT 310. Project Communications. 3 Credits.
This course offers students the opportunity to develop comprehensive technical communications and stakeholder-engagement knowledge and skills. Students will master theoretical and applied skills for properly communicating with project stakeholders and team members. Prerequisite: Junior/Senior standing or department permission.

PMGT 315. Project Scheduling and Control. 3 Credits.
This course explores project scheduling, monitoring, and controlling techniques used by successful project managers. Concepts covered in this course include arrow, PERT, precedence, and linear scheduling methods; resource leveling; time-cost analysis; and time-scaled diagrams. Prerequisite: PMGT 305.

PMGT 320. Introduction to Microsoft Project. 3 Credits.
A schedule helps a project manager plan and execute project activities. Microsoft Project is a powerful tool that can help with the planning of project schedules. This course will provide students with practice creating and managing schedules in Microsoft Project. Students will utilize Microsoft Project to create project plans, explore task dependencies, and generate reports. Prerequisite: Junior/Senior standing or department permission.

PMGT 325. Effective Project Team Leadership. 3 Credits.
This course will introduce students to the fundamental relationship management, communications, and leadership skills necessary to effectively lead project teams. Students will be given a dynamic, applied, and comprehensive view of what project leadership is like in contemporary organizational life. Readings, case studies, and videos integrate best current knowledge with established scholarly research in a way that makes the topic of leadership come alive. The course examines such topics as: Personal vs. Positional Power; Influence vs. Authority; Delegation; Motivating, Prioritizing, and Coaching Teams; Stakeholder Communication; and Conflict Resolution.

PMGT 330. Organizational Strategy and Project Initiation. 3 Credits.

This course will explore the linkages between the implementation of projects and overall organizational success. Students will learn to utilize organizational strategy to guide project selection and initiation to achieve value for the organization. In addition, various tools for evaluating and selecting projects will be explored. Students will also evaluate the steps needed to properly initiate a project. Prerequisite: PMGT 305.

PMGT 335. Project Stakeholder Engagement. 3 Credits.
This course introduces the rationales, processes, and general principles of stakeholder engagement for success in projects. Students will examine and analyze the wide range of methods and tools available to engage with the stakeholders on a project. In addition, the key skills and competencies needed to effectively engage with stakeholders will be explored. Prerequisite: PMGT 305.

PMGT 405. Organizational and Project Risk Management. 3 Credits.

This is an introductory course to teach students how to identify, analyze, plan, and manage project-related risks. Students will gain an understanding of the importance and benefit of risk management for projects. Qualitative and quantitative risk management techniques will be presented to students in this course. Prerequisite: PMGT 305.

PMGT 410. Managing Project Success. 3 Credits.

Students in this course will learn the importance and process of identifying the root cause of the problem to be addressed by a project. Projects frequently fail because the project team failed to properly identify the root cause of the problem. Students will also explore the various types and components of project success with a focus on managing project tradeoffs that must be made. Lastly, students will analyze the many situations where project success is achieved through early termination the project. Prerequisite: PMGT 305 and completion of at least 24 credit hours of PMGT courses.

PMGT 415. Project Procurement and Supply Chain Management. 3 Credits.
This course provides students with an overview of procurement, outsourcing, and supply chain management. The history of procurement and supply chain management will be discussed. The most recent methodologies will then be examined, along with the tools and techniques that are needed to manage procurement and the supply chain in an effective way. Prerequisite: PMGT 305.

PMGT 420. Emerging Trends in Project Management. 3 Credits.
This course explores emerging trends in project management expected to impact project management methodologies and tools over the next one to two decades. The challenges associated with implementing these trends in organizations will be examined. In addition, the skills project managers will need to develop to successfully implement these emerging trends will also be explored. Prerequisite: PMGT 305.

PMGT 425. Global Project Management. 3 Credits.
This course introduces students to the management challenges in conducting projects across borders and cultures. The critical success factors for managing projects across national boundaries are discussed. In addition, consideration of vendor and outsourcing management, remote stakeholder management, and effectively addressing cross-cultural, social, and political issues are examined. Prerequisite: PMGT 305.

PMGT 430. Managing Virtual Project Teams. 3 Credits.
This course is designed to provide an overview of key individual, group, and organizational issues involved in managing virtual project teams. Concepts discussed include setting team members up for virtual success, the additional challenges of effective virtual teams, conducting virtual team meetings, and leading teams across cultures. Prerequisite: PMGT 305 and PMGT 325.

PMGT 510. Advanced Agile Approaches to Project Management. 3 Credits.
Students will move beyond a basic understanding of agile project management by exploring various agile development philosophies and methodologies and how they can be applied to manage current projects. Students will learn how to utilize Scrum and several additional agile frameworks. They will also develop an understanding of when to use agile methodologies (and when not to) and how to tailor agile practices for maximum project success. Prerequisite: PMGT 305.

PMGT 520. Advanced Microsoft Project. 3 Credits.
Students will learn how they can utilize Microsoft Project beyond basic project scheduling. Students will utilize Microsoft Project to level project resources and capture both cost and schedule progress. Students will also learn to set up a project with a calendar, manage baselines, create custom fields and columns, create custom reports, and understand manual vs. automatic scheduling. Prerequisite: PMGT 315 and PMGT 320.

PMGT 599. Project Management Capstone. 3 Credits.
The capstone serves as a culminating experience for the project management courses in this curriculum. Students will demonstrate what they have learned throughout the project management program by

applying leadership, critical thinking, problem solving, and creativity skills to real-world project situations. Subjects covered include project selection and initiation, scheduling and work breakdown structures, cost control and earned value management (EVM), risk management, monitoring and controlling, and project closure. Prerequisite: Completion of at least 33 credit hours of PMGT courses.

PMGT 800. Special Topics: _____. 3 Credits.
Advanced or experimental work of specialized nature representing unique or changing needs and resources in project management. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 802. Innovation and Change Management Process. 3 Credits.
This course will examine innovation models and change management process utilized by successful organizations. The course will emphasize how these concepts relate to project management within an organization and the management of technical operations. The course will address the following topics: -Key models for innovation and how they impact planned change processes -Key organizational factors that impact planning for change -Strategies for change within project work -Resistance to change within planned change process -Ethical considerations relating to change management

PMGT 806. Finance for Project Manager. 3 Credits.
A study of finance including financial planning and management in technological based organizations. Topics covered include financial statement analysis, present value of financial markets, capital budgeting, taxes, investment decisions, replacement decisions, cash flow budgets and sources of capital.

PMGT 808. Lean Six Sigma. 3 Credits.
This course is an introduction to the principles of implementing the Lean Six Sigma philosophy and methodology. Lean Six Sigma is a total enterprise philosophy. Topics follow the DMAIC process and include tools and methods such as process flow diagrams, cause and effect diagrams, failure mode and effects analysis, capability studies, and design of experiments. The use of various concepts to reduce waste and improve system performance such as process flow, standardized work, value streams, workplace organization, and visual controls are covered. Course Objectives: -Understand and apply the Six Sigma DMAIC model for improvement activities. -Utilize Six Sigma knowledge and skills to lead successful improvement projects that deliver meaningful results. -Facilitate the use of improvement tools and techniques in improvement projects.

PMGT 809. Personal Development for Project Managers. 4 Credits.

Concepts and skills development in the primary areas of communication methods, ethical behavior, conflict resolution, workforce diversity, and continuous learning, and secondary areas of basic project and project team contexts and related interpersonal relations. Career development is emphasized.

PMGT 810. Financial Management. 3 Credits.
A study of the concepts and applications of financial planning and management for project and operational managers. Topics include time value of money, asset valuation, capital structures and budgeting, financial analysis and cash flow, and project and operational investment decision-making. Course Objectives: -Knowledge and understanding the principles of financial planning and management. -Knowledge and skills with corporate structures, financial institutions, and investments. -Knowledge and skills with financial reports including balance sheets, income statements and financial ratios. -Ability to apply time valuations, cash flows, and taxation in project and operational environments. -Ability

to apply capital structures and budgeting in project and operational decisions.

PMGT 811. Project Contracts and Procurement. 3 Credits.
An advanced study of the project procurement and contract administration bodies of knowledge and their applications. The project procurement's place in a supply chain life cycle is covered from needs identification to contract closeout with emphasis on requirements definition, vendor selection, contract negotiation and award, service delivery, and performance monitoring. Course Objectives: -Knowledge and understanding of the theories, principles, and benefits of the project procurement life cycle. -Knowledge and application of procurement planning and contract administration best practices, processes, and tools. -Practical application of the project management body of knowledge specific to project procurement management. -Practical application of the supply chain and commercial business body of knowledge specific to contract award, execution, and closeout.

PMGT 816. Project Management Fundamentals I. 3 Credits.
Managerial concepts and skills development in relation to the project-oriented business environment, project lifecycle, integrated project management, project selection, and project initiation. Focus is on management of a single project.

PMGT 817. Project Management Fundamentals II. 3 Credits.
Planning concepts and skills development in relation to developing needed information on project scope, time, cost, and risk, and making direct use of such information to develop key documentation such as the project schedule and budget. Examples of specific topics considered include project work content and change, documentation, and resource requirements. Planning content is complementary to that of PMGT 818. Prerequisite: PMGT 816.

PMGT 818. Project Management Fundamentals III. 3 Credits.
Concepts and skills development in relation to planning for management of communications, human resource aspects of project team formation and development, procurement, and quality. Examples of specific topics considered include information handling, reporting, and stakeholder relationships. Planning content is complementary to that of PMGT 817. Prerequisite: PMGT 816.

PMGT 819. Project Management Fundamentals IV. 3 Credits.
Concepts and skills development in relation to project execution, including processes monitoring and controlling, and project closure. Examples of specific topics considered include handling change requests, procurement, teamwork and team development, and cost management. Course content represents systematic treatment of all aspects of project management beyond planning-but is, in project execution and closing phrases. Prerequisite: PMGT 816.

PMGT 820. Management of New Product Development Projects. 3 Credits.
This course discusses how to properly manage new product development processes using project management tools and techniques. New products are not projects until they are analyzed, planned, scheduled, budgeted, managed, and controlled by managers. It is not typically technical process issues that result in failed new product introductions, but rather a failure in their management and marketing. Prerequisite: PMGT 816 or PFS 804.

PMGT 821. Management of Consulting Projects. 3 Credits.
Application area course exposing students to specialized knowledge, standard, and regulations involved in managing consulting projects. Attention is directed to unique characteristics of consulting project environments, major project phases-from selection to closing-and related management processes. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 822. Management of Governmental Projects. 3 Credits.
Application area course exposing students to specialized knowledge, standards, and regulations involved in managing projects for governmental entities. Attention is directed to unique characteristics of the governmental project environments, major project phases-from selection to closing-and related management processes. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 823. Risk Management for Project Managers. 3 Credits.
Advanced study of risk management theory and practice as applied in managing projects. Basic concepts and methods of risk management are reviewed-such as qualitative and quantitative risk assessment-and details then examined. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 824. Project Cost Estimation, Analysis, and Control. 3 Credits.
Advanced study of cost estimation methodology, cost engineering, and cost control applicable in project management. Includes review of commonly used supportive software. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 825. Portfolio Analysis and Program Management. 3 Credits.

Review practices and processes to achieve organizational objectives by utilizing portfolio analysis and program management. Project evaluation and selection, funding, and performance tracking processes will be examined as well as the facilitation of these efforts across multi-tiered organizations. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 827. Project Team Management and Development. 3 Credits.

Concepts and methods of team and team member development, achieving higher-performance teams while satisfying organizational expectations. Specific topics include management concepts and practices, team dynamics, and interpersonal skills in negotiation and conflict resolution. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 828. Management of Global Projects. 3 Credits.
Survey of management challenges in conducting international projects, emphasizing cross-culture issues. Differences across world regions and selected key countries in relation to communication and interpersonal norms, business conventions, and legal systems will receive particular attention. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 829. Management of Distributed Project Teams. 3 Credits.
Concepts and methods of conducting high-performance, multi-site team operations, focusing on intra-team communication, coordination, and control. Incorporates review of practical technologies with emphasis on web-enabled approaches. Prerequisite: PMGT 816, Project Management-Master of Engineering plan code, or PMP Certified.

PMGT 830. Case Studies in Project Management. 1-3 Credits.
Reinforcement and demonstration of developing project management skills through case analysis and discussion. Goal is integration of learning across all core courses, and also drawing on content from general management, applications area, and advanced project management elective courses taken. Emphasis is on integrated project management. The students will document their project in a written report and present their project during the final oral examination to the Project Management faculty and student's employer or representative if practical. Prerequisite: Must have completed 21 PMGT credit hours and have completed PMGT 816, PMGT 817, and PMGT 818.

PMGT 833. Management of Internal Projects for Scientists and Technical Professionals. 3 Credits.
The purpose of this course is to introduce the student to all aspects of managing a project within a company or organization. The entire project life cycle will be covered from inception to close-out, and many practical considerations will be discussed including material procurement, working with contractors and consultants, selecting software, and managing the project team. The course will focus on how to manage project scope, schedule budget, and resources using personal computer software. A semester project is required presenting an example of project management or investigating some aspect of project management in detail.

PMGT 835. Project Management Capstone. 1-3 Credits.
The capstone serves as a culminating experience for this degree. Students will develop an applied workforce project or benefit to in the student's place of employment for full time students. The students will document their project in a written report and present their project during the final oral examination to the Project Management facility and student's employer or representative if practical. This course can be taken up to three times for a maximum of three credits. Prerequisite: Must have completed 21 PMGT credit hours and have completed PMGT 816, PMGT 817, and PMGT 818.

PMGT 840. Developing as a Project Leader. 3 Credits.
Leadership is a critically important, yet elusive concept. There are more than 200 definitions of leadership in the scholarly literature today, reflecting a growing interest in understanding the topic. This course is designed to provide a comprehensive examination of the key attributes of effective leadership in a project management context. The drivers of effective leadership - including emotional intelligence, change adaptability, conflict management, communication, trust, and resilience - will be studied. Students will explore their own natural leadership attributes and learn to develop a compelling, authentic style that aligns with their personalities, experiences, and beliefs. This course examines several theories of leadership, from the original conception of "trait" theory to more contemporary frameworks involving distributive, servant, and ethical leadership. It also enriches student understanding of positional vs. personal power and influence vs. authority. Prerequisite: PMGT 816.

PMGT 842. Project Management in an Agile Environment. 3 Credits.

This course provides a comprehensive overview of the principles, processes, and practices for managing projects in an agile development environment. Students will learn the basic tenants of the Agile Manifesto and how to apply it to real-world projects. The strengths and weaknesses of an Agile approach to project management vs. a traditional waterfall approach will be explored, emphasizing how to leverage or mitigate the strengths and weaknesses to manage various types of projects. Prerequisite: PMGT 816 or PFS 804 or ITEC 811.

PMGT 860. Project Management Independent Study. 1-4 Credits.
Graduate-level independent study of problems or subjects of immediate interest to a student or faculty member. Project topic to be agreed upon in advance with supervising faculty member. May be repeated for credit up to a maximum of four hours in the degree program. Prerequisite: Consent of instructor.