Department of Pharmacy Practice

Pharmacy Practice Graduate Program

The Department of Pharmacy practice furthers the mission of the School of Pharmacy by striving for excellence in teaching, research, scholarly activity, service, and patient care.

The faculty provide professional educational opportunities for undergraduate, graduate, and postgraduate students and practitioners to enable them to practice pharmaceutical care, adapt to changing professional roles, use new technologies, assume leadership roles in a dynamic health-care environment, and contribute new knowledge to the profession.

Facilities

Facilities of the pharmacy department at the University of Kansas Medical Center (http://www.kumc.edu) in Kansas City are used in the residency portion of the program.

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Courses

**PHPR 502. Pharmacy Practice II Pharmaceutical Care Fundamentals. 4 Hours.**
Drug interactions will be presented with an emphasis on evaluating the risk of the interaction in a particular patient. Patient counseling and communication techniques will be covered. Approximately half the class time will be spent covering non-prescription drugs and herbas. Prerequisite: PHAR 500. LEC.

**PHPR 508. Oncology Elective. 1 Hour.**
This course is designed to extend the students' understanding of Oncology diseases and treatments beyond what is covered in the Pharmacotherapy series in the School of Pharmacy. Prerequisite: PHPR 646. LEC.

**PHPR 509. Medicare Part D. 1 Hour.**
This elective course will focus on the understanding and active enrollment of patients into Medicare prescription drug benefit (Part D). Students will mainly focus on the understanding of Medicare eligibility, benefits, formulary requirements, and the administration of benefits. Students will also participate in community outreach which may focus on underserved patients. Prerequisite: 2nd or 3rd professional year standing in the School of Pharmacy. LEC.

**PHPR 510. Medical Terminology Elective. 1 Hour.**
This course provides the fundamentals for developing a medical vocabulary. The student will develop the ability to understand, define and utilize medical terminology and abbreviations used in patient care. LEC.

**PHPR 511. Service-Learning Elective. 1 Hour.**
Students will work at a health-related community center and participate in structured learning exercises. The objectives are to: 1) enable students to learn appropriate strategies to communicate and provide services to people with varying languages, cultures, and economic backgrounds, disabilities, illnesses, or impairments, 2) increase social interaction and citizenship, 3) heighten social awareness and understanding of ethical issues, and 4) acknowledge social responsibility and realize personal values. FLD.

**PHPR 512. Nuclear Pharmacy. 1 Hour.**
This course is designed for students interested in learning about nuclear pharmacy practice as a specialty practice in pharmacy. Students will learn about the application of radiopharmaceuticals used in the diagnosis of various diseases or identifying patient therapeutic issues. The course will cover principles of radiation, radiation safety, preparation of and handling of radiopharmaceuticals, their appropriate use, and the training requirements for a nuclear pharmacist. At the conclusion of the course the student will have an insight into this specialty practice in nuclear pharmacy as a potential career. Prerequisite: Students must be admitted to the School of Pharmacy. LEC.

**PHPR 513. Chemical Dependency Elective. 1 Hour.**
This elective course will enhance the pharmacy student's knowledge and understanding of the current theories behind the addiction process, frequently abused drugs and/or chemicals and the treatment and recovery process. Prerequisite: Must be accepted to the Pharmacy Program. LEC.

**PHPR 514. Communication and Counseling. 1 Hour.**
An elective course designed to help students improve professional communication skills. Prerequisite: PHAR 500. LEC.

**PHPR 515. The Aging Patient. 1 Hour.**
This elective course is designed for the learner to explore many of the clinical considerations employed when caring for the aging patient within our health care system. The course will be devoted to exploring generational perceptions, learning how the aging process can impact patient care, and identifying the role of the pharmacist in enhancing this care. Prerequisite: Open to four-year Pharmacy and fifth-year Pharmacy students only. LEC.

**PHPR 516. Pharmacy in Public Health. 1 Hour.**
Public health is more than providing treatment for an illness; it is a concern for the health of an entire population. The ideal is to ensure the health of all. This course will focus on providing students with a solid foundational understanding of what public health is and how pharmacists play a role as a public health provider. The course will cover the concepts and tools used in public health including issues such as: determining health, cultural competence, health promotion, disease prevention, epidemiology and disease, describing populations and community health. Lastly, the course will provide students with specific pharmacist models of public health. Successful models include tobacco cessation programs, community vaccination programs, obesity prevention, tuberculosis monitoring, emergency preparedness and domestic violence. Prerequisite: Must be accepted to the Pharmacy Program. LEC.
PHPR 517. Medication Safety and Error Prevention. 1 Hour.
This course introduces the student to medication safety and the
technology as well as the tools used in error prevention. The student will also
learn about adverse drug events including both medication errors and adverse drug reactions in hospital and retail pharmacy settings.
Prerequisite: 4th or 5th professional year standing in the School of
Pharmacy. LEC.

PHPR 518. Cultural Competency in Pharmacy Practice. 1 Hour.
The United States becomes more culturally diverse every year. This
course is designed to help student pharmacists excel in today's
multicultural environment by improving their cultural competency skills.
Students will explore their own culture and those belonging to other
diverse cultures. Students are expected to learn of the beliefs, needs and
tendencies of those with cultures much different than themselves.
Prerequisite: Must be admitted to the School of Pharmacy. LEC.

PHPR 519. Business Planning for Pharmacy. 1 Hour.
This course is designed for students interested in developing a business
plan. Most pharmacists will have an opportunity to develop a new service,
product line or even start a new business venture in their careers.
Students need to know how to create a formal business plan and how
to present the plan to decision makers. The course will cover the basic
components and rationale of creating a formal a business plan. When
finished students will be expected to have created a written business plan
and will present their creation to the class. In this manner, students will
gain experience in developing an idea into a plan. Prerequisite: Students
must be admitted to the school of Pharmacy. LEC.

PHPR 599. Clinical Application of Basic Science. 1 Hour.
This course is an inter-departmental, team-based, technology-centric
elective course. Concomitantly, instructors from the basic and clinical
science departments within the school of pharmacy will promote
deeper student understanding of the path a drug takes from discovery,
development and ultimately clinical use. Instructors will collaborate
in course content development to integrate basic and clinical science
concepts. The course will utilize a blended learning method, incorporating
out of class podcasts, online group collaborative projects, and readiness
quizzes and exams. Prerequisite: 4th or 5th professional year standing
(4P/5P) in the school of pharmacy and concomitant enrollment in either
PTX 599, MDCM 599, or PHCH 599 is required. LEC.

PHPR 601. Advanced Pharmacy Practice Experience 1. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in
pharmacy practice experience rotations. These consist of nine, one-month
rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital
and community practice sites. Each rotation provides an academically
structured environment that enables the student to gain practical
experience under the guidance of a practicing health care professional.
The purpose of providing pharmacy students with a pharmacist role model
is to foster the development of both professional confidence as well as
competence. These practice-based experience settings encourage the
student to apply their didactic education to clinical problem solving. Both
clinical and distributive pharmacy services will be integrated in these
experiences for optimal learning. FLD.

PHPR 603. Advanced Pharmacy Practice Experience 3. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in
pharmacy practice experience rotations. These consist of nine, one-month
rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital
and community practice sites. Each rotation provides an academically
structured environment that enables the student to gain practical
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student to apply their didactic education to clinical problem solving. Both
clinical and distributive pharmacy services will be integrated in these
experiences for optimal learning. FLD.

PHPR 604. Advanced Pharmacy Practice Experience 4. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in
pharmacy practice experience rotations. These consist of nine, one-month
rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital
and community practice sites. Each rotation provides an academically
structured environment that enables the student to gain practical
experience under the guidance of a practicing health care professional.
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is to foster the development of both professional confidence as well as
competence. These practice-based experience settings encourage the
student to apply their didactic education to clinical problem solving. Both
clinical and distributive pharmacy services will be integrated in these
experiences for optimal learning. FLD.

PHPR 605. Advanced Pharmacy Practice Experience 5. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in
pharmacy practice experience rotations. These consist of nine, one-month
rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital
and community practice sites. Each rotation provides an academically
structured environment that enables the student to gain practical
experience under the guidance of a practicing health care professional.
The purpose of providing pharmacy students with a pharmacist role model
is to foster the development of both professional confidence as well as
competence. These practice-based experience settings encourage the
student to apply their didactic education to clinical problem solving. Both
clinical and distributive pharmacy services will be integrated in these
experiences for optimal learning. FLD.

PHPR 606. Advanced Pharmacy Practice Experience 6. 4 Hours.
The final year of the Doctor of Pharmacy program is spent participating in
pharmacy practice experience rotations. These consist of nine, one-month
rotations, in various health care settings. Such practice settings may
include a variety of acute care, ambulatory care, managed care, hospital
and community practice sites. Each rotation provides an academically
structured environment that enables the student to gain practical
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The purpose of providing pharmacy students with a pharmacist role model
is to foster the development of both professional confidence as well as
competence. These practice-based experience settings encourage the
student to apply their didactic education to clinical problem solving. Both
clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

**PHPR 607. Advanced Pharmacy Practice Experience 7. 4 Hours.**
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

**PHPR 608. Advanced Pharmacy Practice Experience 8. 4 Hours.**
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

**PHPR 609. Advanced Pharmacy Practice Experience 9. 4 Hours.**
The final year of the Doctor of Pharmacy program is spent participating in pharmacy practice experience rotations. These consist of nine, one-month rotations, in various health care settings. Such practice settings may include a variety of acute care, ambulatory care, managed care, hospital and community practice sites. Each rotation provides an academically structured environment that enables the student to gain practical experience under the guidance of a practicing health care professional. The purpose of providing pharmacy students with a pharmacist role model is to foster the development of both professional confidence as well as competence. These practice-based experience settings encourage the student to apply their didactic education to clinical problem solving. Both clinical and distributive pharmacy services will be integrated in these experiences for optimal learning. FLD.

**PHPR 610. Advanced Pharmacy Practice Experience 10. 4 Hours.**
The final year of the Doctor of Pharmacy program is spent participating in nine pharmacy practice experience rotations (PHPR 601-609). PHPR 610 is reserved for students requiring a remedial experiential rotation. FLD.

**PHPR 613. Pharmacoeconomics and Health Outcomes. 2 Hours.**
A course to foster an understanding of economic, financial and outcome principles that drive the demand and supply of medical care in the US. Economic logic behind decisions made by patients, physicians, hospitals, managed care organizations, and governments will be covered. Students completing this course should be able to identify the drivers of the health economy, identify different types of pharmacoeconomic evaluations, critically analyze pharmacoeconomic and outcome literature, and apply economic principles to pharmaceutical care. Prerequisite: Students must be admitted to the school of Pharmacy to enroll in this class. LEC.

**PHPR 614. Pharmacy Management. 3 Hours.**
A course designed to provide knowledge and skills to effect efficient and effective pharmacy management. This will include foundations in financial management, inventory control, purchasing, cost-effective drug utilization, quality management, pharmacoeconomics, and human resource management. LEC.

**PHPR 615. Nuclear Pharmacy Practice. 2 Hours.**
This introductory course in nuclear pharmacy practice provides a basic understanding of radiation, radiation dosimetry, radiopharmaceuticals, and clinical application of radiopharmaceuticals in diagnosis and treatment. The course includes both didactic material as well as laboratory experience. LEC.

**PHPR 619. Health Care Systems. 3 Hours.**
This course is an introduction to the organization, financing, and delivery of health care services with a focus on the U.S. health care system. Course content addresses the following questions: how do we evaluate the health care sector, where is health care provided, how is health care financed, what are the characteristics of health care providers (individuals and institutions), what influences the performance of the health care sector, and what lies in the future for health care delivery. The purpose of the course is to prepare pharmacy students for non-clinical aspects of their practice sites. Enrollment limited to pharmacy majors. LEC.

**PHPR 620. Ethical, Legal, and Cultural Issues in Patient Care. 2 Hours.**
This course provides an introduction to the fundamentals of law and ethics as they apply to the practice of pharmacy. Course sessions will focus on ethical expectations of the profession, principles and issues in medical and pharmacy ethics, and laws that govern medication dispensing. LEC.

**PHPR 621. Pharmacy Law. 2 Hours.**
A course developed to increase students' knowledge and understanding of laws that regulate the pharmacy profession. Prerequisite: Fifth year standing. LEC.

**PHPR 630. Drug Information/Biostatistics and Med Lit Evaluation. 3 Hours.**
An introduction to the principles of drug information analysis, storage, and retrieval as well as biostatistics as applied to understanding and interpreting biomedical literature. Advantages and disadvantages of several commercial and manual drug information systems will be considered. The course includes practical experiences in drug information services. The biostatistical emphasis of the course will be on the application of statistical tests commonly used and the interpretation of their results. Prerequisite: Fifth year standing. LEC.

**PHPR 635. Problems in Pharmacy Practice. 1-5 Hours.**
A course designed for the study of special topics in pharmacy practice. A research paper will be required. Prerequisite: Consent of instructor. IND.

**PHPR 646. Pharmacotherapy I. 4 Hours.**
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. Prerequisite: Successful completion of Pharmacy Practice II (PHAR 502). LEC.

**PHPR 647. Pharmacotherapy II. 4 Hours.**
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth
year standing and successful completion of Pharmacotherapy I, PHPR 646. LEC.

**PHPR 648. Pharmacotherapy III. 4 Hours.**
A course dealing with the clinical applications of drug knowledge to patient care. Disease and drug knowledge will be applied to the design and monitoring of therapeutic treatment plans for patients. Incorporates three credit hours of lecture and one credit hour of case studies and off-campus professional experience. This course is graded A,B,C,F. Prerequisite: Fifth year standing and successful completion of Pharmacotherapy II, PHPR 647 with a C or above. LEC.

**PHPR 670. Clinical Assessment. 2 Hours.**
This laboratory course will allow students to develop clinical assessment skills necessary in the provision of pharmaceutical care to patients with a variety of disease states. Students will combine physical assessment skills, patient counseling skills, and pharmacotherapy knowledge and apply this information to patient care related activities in various clinical settings. Students will apply their skills using various practice models that include medication therapy management, collaborative drug therapy management, and interprofessional healthcare teams. The lab component will require students to meet for one hour between 1:00 to 5:00 PM on either Monday, Tuesday, or Wednesdays. Prerequisite: Students must be admitted to the School of Pharmacy to enroll in this class. A detailed schedule of lab meeting dates and times will be provided in the syllabus. LAB.

**PHPR 845. Professional Communications. 2 Hours.**
A course designed to give the graduate student a practical experience in areas of professional communications such as administrative proposals, grants, letters, memos, poster presentations, and written papers. The course focuses on the different kinds of communications required to relate to other health care professionals. Prerequisite: Consent of instructor. LEC.

**PHPR 850. Introduction to Pharmacoepidemiology. 3 Hours.**
Pharmacoepidemiology is the application of the principles of epidemiology to the study of medications and their effects on health. Evaluating a drug’s effects commences when a chemical entity becomes a drug candidate, intensifies through clinical trials, and continues after products reach the market. These studies are critical for supporting the proper use of medications in terms of efficacy, effectiveness, and cost-effectiveness. This course provides a broad introduction to the principles of pharmacoepidemiology with a focus on applications in the medical literature. LEC.

**PHPR 855. Economic Evaluation of Health Care Programs and Services. 3 Hours.**
The course will provide students with an overview and appraisal of the "state-of-the-art" in the evaluation of health care programs and services (with a special emphasis on pharmaceutical programs, services, and products). The purpose of the course is to provide the student with the tools to conduct economic rather than general evaluation of health care programs and services. There will be some discussion of theoretical concepts, but the major emphasis will be on practical methodological issues in economic evaluation of pharmaceutical programs. The course integrates the perspectives of pharmaceutical and health care technology assessment, managed care, outcomes research, and public health. The main topics covered in the course include: cost, cost-minimization, cost-effectiveness, cost-utility, and cost-benefit analyses. LEC.

**PHPR 856. Advanced Institutional Pharmacy Services. 3 Hours.**
A course dealing with the planning, justification, implementation, management, and coordination of a progressive, comprehensive institutional pharmacy service. Seminar presentations and case studies are used to analyze recent advances and to apply data from the research literature. Prerequisite: Consent of instructor. LEC.

**PHPR 875. Health Care Delivery Systems. 3 Hours.**
A continuation of PHPR 865 dealing with the current status of health care delivery systems and the impact of changes in this area on pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.

**PHPR 885. Human Resource Management in Institutional Pharmacy Practice. 3 Hours.**
A course dealing with recruitment, training, motivation, monitoring of performance, and disciplining of personnel. Seminars, case studies, and role playing are used to apply the information to specific human resource management situations in institutional pharmacy practice. Prerequisite: PHPR 865 and consent of instructor. LEC.

**PHPR 899. Research in Pharmacy Practice. 1-6 Hours.**
Original investigation in the area of pharmacy practice. Prerequisite: Consent of instructor. RSH.