

# Pharmacy, PhD

The College of Pharmacy offers a Doctor of Philosophy (PhD) in pharmacy with subprograms in three areas: drug discovery and experimental therapeutics, health services research, and pharmaceuticals.

The drug discovery and experimental therapeutics subprogram offers a unique educational opportunity for students interested in drug discovery and the development of novel therapeutics. The changing landscape of drug discovery has created a need for scientists with interdisciplinary training to navigate the complex landscape of medicinal chemistry, biotherapeutics, pharmacogenetics/genomics, and basic pharmacology/toxicology.

The health services research subprogram provides an innovative approach to studying the challenges facing the health care system and provides evidence to support policy-based solutions. It combines ideas across several distinct scientific paradigms (sociology, economics, psychology, business, and anthropology) to better understand the factors leading to decisions in health care and the consequences of these decisions. Students gain a broad knowledge of health and pharmaceutical care, informed by theories from economics and social psychology. The subprogram teaches intellectual and practical skills to investigate research questions dealing with current issues.

The pharmaceuticals subprogram provides a multidisciplinary science focus that examines the development, production, and characterization of dosage forms, as well as the disposition and action of drugs in the body. As pharmaceutical scientists have been engaged in the development of novel biomaterials for sophisticated drug delivery systems, they also have expanded into research with applications in the development of medical devices and tissue engineering.

For more information about graduate study, visit the College of Pharmacy website.

## Learning Outcomes

Graduates will demonstrate the ability to:

- identify important research problems through the development of subject matter expertise and critical evaluation of the current state of knowledge in that area of expertise;
- develop testable hypotheses and/or research questions and then utilize sound methodology to design research approaches to address them;
- conduct, analyze, and interpret independent original research that contributes new knowledge to the field of study;
- effectively communicate research results to a range of audiences in various multimedia formats;
- conduct all aspects of research and communication of results with the highest ethical standards; and
- be prepared for a diversity of career options in academia, industry, government, or other relevant fields.