

PHARMACY - PHAR (PHAR)

PHAR 5216. Dosage Forms I. (3 Credits)

Introduces the student to the principles of thermodynamics, ionic equilibrium, chemical kinetics and diffusion. Application of these principles to formulation, stability and dissolution of a drug product, and release from the dosage form for optimum therapeutic outcome. Required of entering graduate students in Pharmaceutics who do not have a Pharmacy background as well as those who do not pass the qualifying examination within the first year of the program. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205216>)

PHAR 5217. Dosage Forms II. (3 Credits)

Covers the basic principles of the surface and colloid chemistry and rheology, as these relate to the performance of dispersed system dosage forms including colloids, suspensions, emulsions, suppositories, aerosols, ointments, and transdermals. Required of entering graduate students in Pharmaceutics who do not have a Pharmacy background, and those who do not pass the qualifying examination within the first year of the program. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205217>)

PHAR 5219. Biopharmaceutics and Pharmacokinetics. (3 Credits)

Basic principles of biopharmaceutics, bioavailability, and pharmacokinetics, including their application to the rational design of both dosage forms and maximally effective dosing regimens. Intended for graduate students who may not have sufficient previous exposure to biopharmaceutics and pharmacokinetics. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205219>)

PHAR 5239. Current Literature in Pharmaceutics. (1 Credit)

Designed to familiarize students with current pharmaceutics literature and to educate students in critical peer review in the pharmaceutics literature. May be repeated for a total of 3 credits. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205239>)

PHAR 5240. Drug Discovery and Development. (2 Credits)

The processes of new drug development; target identification, drug discovery process, drug candidate evaluation, preclinical toxicity assessment, drug formulation and delivery, clinical trials for safety and efficacy, and FDA regulation on new drug application. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205240>)

PHAR 5250. Pharmacogenomics and Personalized Medicine. (2 Credits)

The allied fields of pharmacogenomics and personalized medicine have become areas of intense interest. Each patient responds to drugs and medical treatments in an individualized way, often having to do with underlying genetics. Individual genetic variance often impacts treatment efficacy, pharmaceutical responses, and toxicological adverse events. This course will consider these knowledge areas, which are at the cutting edge of medical advance. Aspects of personalized medicine that go beyond genetics, including the use of patient-matched stem cells will also be discussed.

Enrollment Requirements: Open to graduate students or by instructor consent for prepared upper-level undergraduates. Recommended preparation: A basic understanding of genetics is recommended. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205250>)

PHAR 5293. Seminar in Pharmaceutics. (1 Credit)

Reports and discussions. May be repeated for a total of 4 credits. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205293>)

PHAR 5295. Special Problems in Pharmaceutics. (1-4 Credits)

Individualized course for students desiring research experience in any of the areas of pharmacy other than the area chosen by the student for thesis research. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205295>)

PHAR 5297. Special Topics in Pharmaceutics. (1-6 Credits)

Includes topics not presently covered in courses which are pertinent to current departmental research and areas of recent development in the literature. May be repeated for a total of 24 credits. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205297>)

PHAR 5301. Macromolecules in Drug Design. (2 Credits)

A cooperative presentation of the fundamentals of medicinal chemistry. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205301>)

PHAR 5302. Chemical Biology and Drug Design. (2 Credits)

Introduction to the emerging field of chemical biology with a particular focus on the role it plays in understanding cellular signaling, drug design, and drug development. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205302>)

PHAR 5303. Small Molecule Structure and Function. (2 Credits)

Small organic molecules continue to be the preeminent form of therapeutic agents. The small molecules that constitute clinically used agents are developed through a highly interdisciplinary process involving chemists, biologists and healthcare workers in a process commonly referred to as drug discovery. The purpose of this course is to provide the student with a broad view of drug properties, drug function and the drug discovery process. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205303>)

PHAR 5393. Seminar in Medicinal Chemistry. (1 Credit)

Reports and discussions. May be repeated for a total of 10 credits. View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205393>)

PHAR 5395. Special Problems in Medicinal Chemistry. (1-4 Credits)

Individualized course for students desiring research experience in any of the areas of medicinal chemistry other than the area chosen by the student for thesis research.

May be repeated for a total of 12 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205395>)

PHAR 5397. Special Topics in Medicinal Chemistry. (1-6 Credits)

Current developments in Medicinal Chemistry. A course for students needing exposure to topics not covered in other department offerings.

May be repeated for a total of 6 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205397>)

PHAR 5403. Current Literature in Pharmaceutical Sciences. (1 Credit)

Designed to familiarize students with current pharmaceutical sciences literature and to educate students in critical peer review of this literature.

May be repeated for a total of 2 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205403>)

PHAR 5454. Principles of Safety Evaluation. (1 Credit)

Introduction to toxicologic risk assessment. Fundamentals of dose-response relationships and risk characterization, and their application in the establishment of permissible exposure limits for drugs and other chemicals in the environment or workplace.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205454>)

PHAR 5471. Advanced Pharmacology I: Basic Principles. (3 Credits)

Molecular mechanisms of drug action including occupation and rate theories. Characterization of receptors in-situ and in-vitro.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205471>)

PHAR 5472. Advanced Pharmacology II: Drug Disposition. (2 Credits)

Drug absorption, distribution, excretion, metabolism, interaction, allergy, resistance, tolerance, idiosyncrasy and toxicity.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205472>)

PHAR 5475. Toxicology Scholars Colloquium. (1 Credit)

Reviews, discussions and seminars focused on the research of scientists who have made significant contributions to the science of toxicology.

May be repeated for a total of 5 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205475>)

PHAR 5493. Seminar in Pharmacology and Toxicology. (1 Credit)

Reports and discussions on journal and review articles and presentation of personal research results.

May be repeated for a total of 2 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205493>)

PHAR 5494. Seminar in Immunology. (1 Credit)

Reports and discussions.

May be repeated for a total of 2 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205494>)

PHAR 5495. Special Problems in Pharmacology I. (1-4 Credits)

Individualized for students desiring research experience in any of the areas of pharmacology.

May be repeated for a total of 6 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205495>)

PHAR 5496. Special Problems in Toxicology. (1-4 Credits)

Individualized course for students desiring research experience in any of the areas of toxicology.

May be repeated for a total of 6 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205496>)

PHAR 5497. Special Topics in Pharmacology. (1-6 Credits)

Includes topics not presently covered in courses, which are pertinent to current departmental research and areas of recent development in the literature.

May be repeated for a total of 24 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205497>)

PHAR 5498. Special Topics in Toxicology. (1-6 Credits)

Basic principles of toxicology as emphasized by recent developments in the biochemical toxicology literature.

May be repeated for a total of 24 credits

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205498>)

PHAR 5746. Introduction to Managed Care Pharmacy. (3 Credits)

A study of managed care pharmacy within the United States health care system, with emphasis on managed care organization and control, pharmacy benefits design and management, outcomes measurement, pharmacoconomics, health care provider and client education, benefits plan financing and marketing, and legal issues of managed care pharmacy.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205746>)

PHAR 5764. Advanced Pharmacy Administration. (3 Credits)

A study of modern management techniques applicable in terminal drug distribution. Special emphasis is placed upon quantitative methods and the utilization of electronic data processing.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205764>)

PHAR 5797. Special Topics in Pharmacy Administration. (1-6 Credits)

Current developments in Pharmacy Administration. A course for students needing exposure to topics not covered in other Department of Pharmacy Practice offerings.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%205797>)

PHAR 6234. Advanced Biopharmaceutics. (3 Credits)

Overview of physico-chemical, biopharmaceutic, and physiologic factors controlling the delivery of drug and their sites of action.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206234>)

PHAR 6242. Freeze Drying of Pharmaceuticals. (2 Credits)

The science and technology of freeze drying, including fundamentals of heat and mass transfer gas systems, process design considerations, and formulation strategies with emphasis on stabilization of therapeutic proteins.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206242>)

PHAR 6285. Complex Equilibria. (3 Credits)

A study of the physico-chemical and mathematical treatment in pharmaceutical systems. Topics center on thermodynamics, activity coefficients, acids and bases, solubility, complexation solubilization and protein binding.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206285>)

PHAR 6286. Transport Processes. (3 Credits)

Emphasis is on the application of the laws of diffusion to dissolution, membrane transport and release of drugs from dosage forms.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206286>)

PHAR 6288. Kinetics and Mechanisms of Drug Degradation and Stability. (3 Credits)

A study of the kinetics and mechanisms of drug degradation in the solid and liquid states and drug stabilization.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206288>)

PHAR 6289. Pharmacokinetics. (3 Credits)

A discussion of absorption, distribution, and clearance mechanisms, and their impact on concentration-time profiles and drug response.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206289>)

PHAR 6290. Colloid Chemistry and Interfacial Phenomena. (3 Credits)

Interfacial phenomena, colloid chemistry.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206290>)

PHAR 6455. Advanced Toxicology. (4 Credits)

A study of the harmful effects of toxic chemicals on biological systems.

Emphasis is on mechanisms of toxicant action and on practical applications of modern techniques to assess toxicity and hazard.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206455>)

PHAR 6459. Immunotoxicology. (2 Credits)

Demonstrates the detrimental effects on the immune system and/or inflammatory response, by a variety of physical and chemical xenobiotics. Emphasis is placed on the mechanisms of chemical and drug-induced immunosuppression, autoimmune response, and allergic response.

View Classes (<https://catalog.uconn.edu/course-search/?details&code=PHAR%206459>)