

PHARMACEUTICAL SCIENCES (PHD)

Overview

From drug discovery all the way to clinical trials, our PhD program in Pharmaceutical Sciences will give you ideal training to become an innovator. Major areas of study include biotechnology, molecular biophysics, drug delivery, nanotechnology, clinical pharmaceutical sciences, and medicinal chemistry.

Admission Requirements

The normal requirements for admission to the graduate program in pharmaceutical sciences include a bachelor of arts or science degree from an accredited institution, as well as an academic record which satisfies the minimum admission requirements established by the CU Graduate School. Admissions are for the fall semester only.

An undergraduate degree in pharmacy, chemistry, biology, or chemical engineering is excellent preparation for graduate training in pharmaceutical sciences; however, no specific undergraduate major is required. All applicants for the program should have completed a year of study in the following subjects: general chemistry, organic chemistry, calculus, biology, and physics. In addition, courses in the following subjects will be highly recommended to supplement the student's background: biochemistry, statistics, cell biology, physical chemistry, computer science, and immunology. Under special circumstances, deficiencies in important areas may be made up within the first year after entrance into the program.

Normally, admission to the program will be dependent upon an undergraduate GPA of 3.0 or better. Students applying with a GPA less than 3.0 may be considered individually on a provisional basis. If you do not have a degree from a U.S. or Canadian institution, your official transcript will be evaluated by the Office of International Affairs.

The admission deadline for completed applications to be received at the School of Pharmacy is Dec. 1. Given that admission to the program is very competitive, it is impossible to evaluate your qualifications for admission (test scores, grades) until the selection committee assesses the entire applicant pool.

Degree Requirements

Students must complete the following requirements:

- Two Research Rotations in Fall/Spring semesters of 1st year (PHSC 7650; 1-3 credits each)
- Seminar in Pharmaceutical Sciences in each semester (PHSC 7568; 2 credits/Fall/Spring/1st-3rd Year only)
- Ethical Issues in Toxicology & Pharmaceutical Sciences (PHSC 7400 - 1 credit)

Code	Title	Hours
PHSC 7310	Fundamentals of Pharmaceutical Sciences I	3
PHSC 7320	Physical Pharmacy & Pharmaceutical Sciences	3
PHSC 7330	Development of Drugs and Biologics	3
<i>Other Science Courses Commonly Taken:</i>		
PHSC 7328	Computational Design in Drug Discovery	3
PHSC 7340	Molecular Biophysics and Enzymology	2

TXCL 7452	Introduction to Clinical Pharmacology	3
TXCL 7353	Immunology: Immunotoxicology and Immunopharmacology	2
PHSC 7565	Applied Statistics for Pharm Science and Toxicology	2
STBB/PHSC 7608	Molecular Interactions	3
STBB/PHSC 7609	Biophysics & Spectroscopy	1.5
PHSC 7651	Pharmaceutical Biotechnology (Crosslisted with CU Boulder as CHEN 5838)	3
PHSC 7653	Protein Formulation	2
PHSC 7660	Liposome-based Drug Delivery	2
PHSC 7665	Pharmacokinetic Principles & Applications	3
PHSC 7345	Nanotechnology & Drug Delivery	2
PHSC 8990	Doctoral Thesis	1-10