PHARMACEUTICAL SCIENCES MINOR

Pharmaceuticals are a major part of the health industry. The minor in pharmaceutical sciences (https://pharmacy.unc.edu/minor-in-pharmaceutical-sciences/) is designed to expose undergraduate students to core areas of pharmaceutical science in preparation for advanced degrees in the health science professions, pharmaceutical sciences research, and graduate programs in fields such as chemistry as well as careers in pharmacy, pharmaceutical research, biomedical sciences, or the pharmaceutical industry. Students will learn the foundations of pharmaceutical discovery, development, disposition, and application.

Upon completion of the pharmaceutical sciences minor, students should be able to:

- Identify methods in which pharmaceuticals are researched and developed
- Describe how pharmaceuticals interact with the human body
- Compare methods of formulation, manufacturing, and testing of pharmaceutical dosage forms
- Explain how basic sciences play a role in the development of modern therapeutics

Admissions

The minor is available to all undergraduate students. Students must fulfill specific prerequisite requirements (see Requirements tab) and submit an application. Applications will be accepted each year in the first six weeks of the fall semester. The application requires the following information:

- GPA (minimum 3.0)
- Grades for any courses already completed in chemistry, math, and biology
- A brief statement (approx. 500 words) explaining why you are interested in the field of pharmaceutical sciences

Requirements

In addition to the program requirements listed below, students must:

- take at least nine hours of their minor "core" requirements at UNC–Chapel Hill
- earn a minimum cumulative GPA of 2.000 in the minor core requirements. Some programs may require higher standards for minor or specific courses.

For more information, please consult the degree requirements section of the catalog (https://catalog.unc.edu/undergraduate/degree-requirements/).

Admission Requirements

Code	Title	Hours
Students must complete the following courses:		
CHEM 261	Introduction to Organic Chemistry I [H]	3
MATH 231	Calculus of Functions of One Variable I [H, F]	4
Students must complete or be enrolled simultaneously in the following courses:		
CHEM 262	Introduction to Organic Chemistry II [H]	3
It is also strongly advised that students have already completed the following courses:		
BIOL 240	Cell Biology [H]	3
BIOL 252	Fundamentals of Human Anatomy and Physiology (or comparable course) [H]	3

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

Program Requirements

Code	Title	Hours
Core Requirements		
PHRS 175	Principles of Pharmacy and Pharmaceutical Sciences (spring only)	1
PHRS 502	Making Medicines: Drug Discovery, Development, and Approval	1
Additional elective courses chosen from the following list:		13
PHRS 395	Research in Pharmaceutical Sciences	
PHRS 501	Fundamentals of Regulatory Affairs	
PHRS 504	Biochemical Foundations of Chemical Biology	
PHRS 507	Molecular Foundations of Chemical Biology: Organic and Medicinal Chemistry	
PHRS 515	Evaluation Research and Project Design	
PHRS 516	Foundations in Implementation Science: Examples in Precision Health and Society [1]	
PHRS 517	Data Science in Pharmacy	
PHRS 538	Nanomedicine [1]	
PHRS 564	Advances in Drug Delivery	
PHRS 596	Pharmaceutical Sciences Seminar in Chemical Biology and Medicinal Chemistry [2]	
PHRS 597	Pharmaceutical Sciences Seminar in Pharmacotherapy and Experimental Therapeutics [2]	
PHRS 598	Pharmaceutical Sciences Seminar in Pharmacoengineering and Molecular Pharmaceutics [2]	
PHRS 599	Pharmaceutical Sciences Seminar in Pharmaceutical Outcomes and Policy [2]	
Total Hours		**15**

[1] These courses have prerequisites that are not required for the minor.
[2] Only two seminars will count toward the minor. Each seminar can only be taken once, regardless of grade received.

Department Programs

Professional Degree

- Doctor of Pharmacy (Pharm.D.) (https://catalog.unc.edu/undergraduate/programs-study/pharmd/)

Minor

- Pharmaceutical Sciences Minor (p. 1)

Graduate Programs

- M.S. in Pharmaceutical Sciences (https://catalog.unc.edu/graduate/schools-departments/eshelman-school-pharmacy/)
- M.P.S. in Regulatory Science (https://catalog.unc.edu/graduate/schools-departments/eshelman-school-pharmacy/)
- Ph.D. in Pharmaceutical Sciences (https://catalog.unc.edu/graduate/schools-departments/eshelman-school-pharmacy/)

Contact Information

UNC Eshelman School of Pharmacy
Visit Program Website (http://www.pharmacy.unc.edu)
301 Pharmacy Lane, CB # 7355, Chapel Hill, NC 27599-7355
(919) 966-9429

Program Director
Scott Singleton
scott_singleton@unc.edu

Dean
Angela Kashuba
pharmacy_admissions@unc.edu