

PHARMACEUTICAL SCIENCES MINOR

Pharmaceuticals are a major part of the health industry. The 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 252 | Fundamentals of Human Anatomy and Physiology (or comparable course) ^H | 3 |
| BIOL 240 | Cell Biology ^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 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 | | 14 |

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.

Contact Information

UNC Eshelman School of Pharmacy

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