

# Curriculum Requirements

## Pharmaceutical Sciences Concentration

### YEAR 1

During the first year, students in the Pharmaceutical Sciences concentration must take three (3) required courses chosen from the list below, plus three (3) elective courses that can be selected from 1) the below list, 2) the Pharmacology Concentration required course list (see p. 11), and/or 3) the Medicinal Chemistry electives list (see p. 13). Elective courses not on the above lists must be approved by the Graduate Advisor. All of the required courses must be completed by the end of your first year.

#### Required Courses (select three)

PHARM 255 – Chemical Transmission  
PHRMSCI 223 – Biological Macromolecules  
PHRMSCI 264 – The RNA World: From Discovery to Mechanisms  
PHRMSCI 265 – New Frontiers in Chemical and Synthetic Biology  
PHRMSCI 270 – Molecular Pharmacology or PHARM 254 – Introduction to Pharmacology  
PHRMSCI 272 – Special Topics in Pharmaceutical Sciences (topics change quarterly/annually)  
PHRMSCI 274– Nanomedicine (offered biennially)  
PHRMSCI 277 – Medicinal Chemistry  
PHRMSCI 279 – Emerging Technologies in Pharmaceutical Sciences and Medicine

#### Elective Courses

Elective courses are very flexible as to meet the need of each individual student's goals. As a guide, we have created a [list of courses](#) each faculty feel students interested in working in their labs should take. For additional guidance, discuss the courses with the particular faculty member or with the Graduate Advisor.

#### Additional Courses

PHRMSCI 250A/B/C – Topics in Pharmaceutical Sciences\* (entire series may count as 1 elective course)  
PHARM 257 – Ethics in Research or equivalent (Responsible Conduct of Research training – [UC Learning Center](#) online modules – once completed, send the SAO the certificate of completion)  
PHRMSCI 298 – Research Seminar (all PharmSci students must enroll in this course every quarter)  
PHRMSCI 299 – Graduate Research (all PharmSci students must enroll in enough research units to bring their quarterly total to 12-16 units each quarter)  
PHRMSCI 399 – University Teaching (or equivalent in the respective department for which you are TAing) – You must enroll in the course every quarter you are employed as a TA.

#### Comprehensive Exam

\* Successful completion of this course series, including the final paper, fulfills your comprehensive exam requirement. If you do not complete this course series, you must take a separate, additional written comprehensive exam.

# Curriculum Requirements Cont.

Fall	Winter	Spring
PHARM 254; and/or Other Elective PHRMSCI 250A PHRMSCI 298 (Seminar) PHRMSCI 299 (Lab Rotation)	PHRMSCI 277; and/or PHRMSCI 270; and/or Other Elective PHRMSCI 250B PHRMSCI 298 (Seminar) PHRMSCI 299 (Lab Rotation)	PHRMSCI 223; and/or PHARM 255; and/or PHRMSCI 265; and/or PHRMSCI 278; and/or Other Elective PHRMSCI 250C PHRMSCI 298 (Seminar) PHRMSCI 299 (Lab Rotation) PHRMSCI 399 (TAsip)

## YEARS 2-5

After your first year, your research advisor may suggest additional elective coursework. You must also enroll in PHRMSCI 299 and PHRMSCI 298 **each quarter** for a minimum of 12 units and a maximum of 16 units total until you complete your degree.