

CHEMISTRY, PHD

The Graduate Program is designed for students who wish to earn a Ph.D. in Chemistry while undertaking cutting edge research. The program provides students with the necessary theoretical background and hands-on training to become independent and highly successful scientists.

Graduate students achieve mastery of advanced chemistry topics through courses in different subdisciplines.

Graduate students conduct research in the fields of bioinorganic chemistry, bioorganic chemistry, chemical biology, biophysical chemistry, bioinformatics, materials science, laser chemistry, health related chemistry, structural and dynamical studies of biological systems, X-ray scattering/diffraction, NMR spectroscopy, applications of computing and computer graphics, as well as investigations of chemical communication and hormone-receptor interactions.

For more information: <https://www.chem.upenn.edu/content/phd-program> (<https://www.chem.upenn.edu/content/phd-program/>)

View the University's Academic Rules for PhD Programs (<http://catalog.upenn.edu/pennbook/academic-rules-phd/>).

Curriculum

Twenty course units are required for graduation.

The PhD program requirements consist of:

- A minimum of six course units of lecture courses (usually completed in the first academic year)
- Chemical Information Course
- Lab Rotations (Biological and Biophysical students only)
- Teaching Requirement (Students must TA for two semesters)
- Second Year Candidacy Exam
- Annual Dissertation Committee Meetings
- Public Defense
- Written Dissertation

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Sample Plan of Study

Code	Title	Course Units
Year 1		
Select 6 course units of required coursework		
	Chemical Information Course	
Choose a Research Supervisor		
Year 2		
CHEM 9999	Independent Study and Research	
Form Dissertation Committee		
Candidacy Exam		

Year 3

CHEM 9999 Independent Study and Research

Annual Meeting of the Dissertation Committee

Year 4

CHEM 9999 Independent Study and Research

Annual Meeting of the Dissertation Committee

Years 5 and 6

Write Dissertation

Public Defense

Additional Coursework may be taken throughout.