

Proposed Catalogue Changes:

Doctoral Program

Doctor of Philosophy with Major in Chemistry

The Ph.D. program in the Department of Chemistry and Biochemistry focuses on Chemical Biology and allows students to pursue a research program in all of the disciplines of chemistry.

Admission Requirements

The minimum admission requirements for the Ph.D. program in the Department of Chemistry and Biochemistry are a **minimum 3.0 GPA in the last 60 credits of undergraduate work, a "B" average in chemistry courses taken at the junior and senior undergraduate levels, and scores of at least 150 (verbal) and 152 (quantitative) on the Graduate Record Exam.**

Degree Program

Students will be required to complete three core courses as well as three electives. If students have completed graduate-level courses previously, they may be substituted for one or more electives at the discretion of the **Department of Chemistry and Biochemistry Graduate Programs** committee. Elective courses must be approved by the student's **research** advisory committee. Students must also complete Introduction to Chemical Research and present a seminar to the department (1 credit each). **In addition to the courses listed below, Ph.D. students are required to earn Advanced Research in Chemistry (CHM 7978) credits until they are admitted to candidacy.**

Introduction to Chemical Research (CHM 5944)	1
Instrumentation (CHM 6157)	3
Kinetics and Energetics (CHM 6720)	3
Synthesis and Characterization (CHM 6730)	3
Graduate Seminar (non-thesis) (CHM 6935)	1
Graduate Elective Courses	(minimum) 9
Dissertation (CHM 7980)	(minimum) 25
Minimum Degree Total	80

Each student's research advisory committee **must** have at least four members, three of whom are members of the Chemistry **and Biochemistry** Ph.D. program's graduate faculty. One committee member must be from outside the Department of Chemistry and Biochemistry **and have graduate faculty status.**

Admission to Candidacy

The Candidacy Exam must be attempted within three months of finishing all coursework and successfully completed within five months. This exam will be specifically designed for each student **by the student's research advisory committee according to the Department guidelines** and will focus on the student's selected area of research. Students will be admitted to candidacy upon successful completion of the Candidacy Exam and **thereafter** must enroll in CHM 7980, Dissertation.

Research Proposal

In addition to presenting a proposed plan for thesis research activities to the advisory committee, students must also complete an independent research proposal in a field distinct from their thesis research. This proposal is to be completed within three months of completing the Candidacy Exam. The goal of this exercise is for the student to prepare an original written research proposal and successfully defend this orally to his/her committee. This is designed to test the student's ability to identify and design a research project, which will test problem-solving skills and ability to distill relevant literature and design appropriate experiments to address specific research questions.

Dissertation

Students must also write a dissertation describing their research, which must be approved by the research advisory committee. The dissertation must be successfully defended by the student in an oral exam with the research advisory committee.