

Chemistry, PHD

Modality

On Campus

Program URL

<https://chemistry.georgetown.edu/phdprogram/>

The Ph.D. program in Chemistry provides students with a broad knowledge of chemistry theories, concepts, and models to enhance their success as scientists and educators. Students solve new and significant problems in their chosen specialty and understand the importance of their work advancing the progress of their discipline.

Academic Policies

Students must meet the minimum GPA average required by the Graduate School and follow academic requirements as outlined in the Program Handbook.

Requirements

Program Requirements

A minimum of 21 credits are required prior to beginning the dissertation. Additionally, all students conduct three seminars during their tenure in the program in order to enhance their communication skills. Students are required to teach for at least one year to gain experience in teaching methods.

Required Examinations

Placement Examinations

Upon entrance into the doctoral program, students take Phase I exams in areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry before starting the first semester. These exams are similar to ACS tests and gauge the standing of students on topics typically covered in B.S. programs. The results also inform course selection.

Students are required to reach excusing level in 4 out of 5 chemistry areas in order to advance to the second year of study. Students are allowed up to three attempts in each exam area.

Comprehensive Examination

The Comprehensive Examination is comprised of two oral exams. The Phase IIA exam occurs in the fourth semester where students are guided by their research mentors to prepare and submit a document summarizing research accomplishments and directions. The thesis advisory committee forms at this juncture and an oral examination is conducted to evaluate the research progress and students' fundamental chemical knowledge pertinent to the research area.

The Phase IIB exam occurs in the semester following the Phase IIA exam. Students must prepare an original research proposal without mentor input and defend the proposal in an oral examination. These exams prepare students for the design, execution, and reporting of scientific studies.

Thesis Requirements

Students are required to convene a dissertation to committee to support them through original research that will result in a dissertation. Once the committee approves the dissertation for submission, students will give a 20-minute presentation on the dissertation followed by an oral defense. The presentation and questioning parts of this examination are open to the public and should be advertised ahead of the defense date.