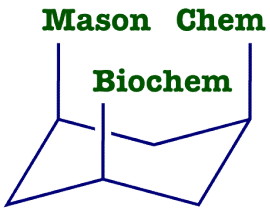

Ph.D. in Chemistry and Biochemistry

http://cbgrad.gmu.edu/aboutthephd.pdf

The Ph.D. in Chemistry and Biochemistry provides students with the opportunity to work on exciting research projects in multiple areas of Chemistry and Biochemistry, including projects in water quality and purification, drug discovery and delivery, biofuels, antibacterials, and the chemistry of astrophysical ices. The program consists of both coursework and an independent research project under the guidance of a faculty mentor and has been designed to accommodate both full time and part time students. Students in the program will be expected to conduct an original research project and communicate their findings to the greater scientific community.

Admission Requirements

The Chemistry and Biochemistry Ph.D. program is intended for students who have completed an undergraduate program of study in chemistry, biochemistry, or a related field.

Applicants are expected to have a B.S. degree with a minimum GPA of 3.00 and acceptable GRE scores. International students whose first language is not English must take the TOEFL or IELTS. GMU Admissions maintains a useful International Students web site (**https://www2.gmu.edu/admissions-aid/how-apply/international**).

Applicants with a B.S. degree in other physical or life science related fields and with a strong chemistry or biochemistry background (coursework through their third year of undergraduate study) may be accepted provisionally, and may be required to successfully complete coursework in deficient areas, some of which may not be applicable towards Ph.D. course requirements.

Interested students should submit a completed GMU Graduate Application, three letters of reference, official reports of general GRE examination scores, TOEFL or IELTS examination scores (if applicable), and a personal/goals statement outlining their general research interests and career plans.

Reduction of Credit

For students entering the doctoral program with a master's degree in chemistry, biochemistry, or a related field from a regionally accredited institution, the number of required credits may be reduced up to 30 credits, subject to approval of the program faculty and the associate dean for student and academic affairs.

See **http://cbgrad.gmu.edu/cbgrad.pdf** and look for "Reduction of Credits for a previous M.S."

Degree Requirements

The Ph.D. program in Chemistry and Biochemistry requires a minimum of 72 credits, distributed among the following categories of courses: core courses (6 credits), seminar (3 credits), electives (39 credits) and dissertation research (24 credits).

Core Courses: All students are required to take 6 credits of core courses.

Course Number and Name	Credits
CHEM 817: Organic Structural Spectroscopy	3
CHEM 833: Physical Chemistry and Biochemistry	3

Seminar: Students take CHEM 790 three times.

Electives: Students select 39 credits from classroom courses in Chemistry, Biochemistry and related disciplines, CHEM 796 research, and CHEM 896 research, in consultation with the student's research advisor.

Advancement to Candidacy: Students should register for CHEM 998 (Doctoral Dissertation Proposal) shortly before advancing to candidacy. Students must advance to candidacy before registering for CHEM 999 (Doctoral Dissertation Research). Advancement to Candidacy entails a formal research proposal, written tests, and an oral presentation. Students must proceed with the advice of the research advisor and Ph.D. committee. The process becomes part of the student's permanent record. Advancement to Candidacy involves multiple steps and a full description is available at

http://cbgrad.gmu.edu/advancandforms.pdf

Dissertation Research: No more than 24 combined credits of CHEM 998 and CHEM 999 may be applied toward satisfying doctoral degree requirements, with no more than 12 credits of CHEM 998.

Full Details: A complete description of admission and graduation requirements is provided in the University Catalog at

http://catalog.gmu.edu

Apply Online: **https://www2.gmu.edu/admissions-aid/apply-now**