

CHEMISTRY AND BIOCHEMISTRY, PH.D.

The Ph.D. in Chemistry and Biochemistry requires 56 credit hours in advanced biochemical and medicinal chemistry course work and a dissertation culminating from extensive laboratory research experience carried out under the direction of a faculty advisor. Additional course work is offered in specialized areas such as synthetic chemistry, bioanalytical chemistry, and computational chemistry. The student gains experience in professional speaking by giving public oral scientific presentations through the departmental seminar program. The successful candidate will be well prepared for careers in biotechnology, pharmaceutical or medical research, or academia.

For information regarding deadlines and requirements for admission, please see the Guide to Graduate Admissions (<https://grs.uncg.edu/prospective/guide>).

In addition to the application materials required by The Graduate School, applicants must submit a one-page personal statement by the appropriate deadline to be considered for Fall or Spring admission.

A minimum of a B.S. in Chemistry, Biochemistry, or related field is required.

Degree Program Requirements

Required: 56 credit hours

Code	Title	Credit Hours
Required Core Courses (6 credits)		
Select two courses (6 credits) from the following:		6
CHE 753	Structure Elucidation in Medicinal Chemistry	
CHE 756	Enzyme Mechanisms	
CHE 758	Nucleic Acid Biochemistry	
CHE 759	Receptor Biochemistry	
CHE 760	Biochemical Pharmacology and Disease Targets	
Research Techniques (25-37 credits)		
CHE 720	Introduction to Graduate Research	1
CHE 780	Research Problems in Chemistry and Biochemistry	2-18
CHE 799	Dissertation Research in Chemistry and Biochemistry *	12-18
Seminars (2 credits)		
CHE 751	Literature Seminar	1
CHE 752	Dissertation Seminar	1
Electives (12 credits minimum)		
Select a minimum of 12 credits of elective courses **		12
Total Credit Hours		56

* A minimum of 12 credits in CHE 799 is required.

** In approved (by the Department Graduate Studies Committee and student's research advisor) elective graduate courses in chemistry, biology, mathematics or physics. Students who plan to pursue employment in industry are encouraged to enroll in CHE 790 Chemistry and Biochemistry Internship.

Required Milestones*

- Residency (Immersion)
- Plan of Study
- Research Competency
- Comprehensive Exam (Written & Oral)
- Dissertation Proposal
- Admission to Candidacy
- Dissertation Defense
- Filing the Final Approved Dissertation

* General information about milestones for doctoral programs is available in Section III (<https://catalog.uncg.edu/academic-regulations-policies/graduate-policies/#sectioniiisummaryofgraduateschoolregulationsforallcertificatesanddegreestext>) of the Graduate Policies (<https://catalog.uncg.edu/academic-regulations-policies/graduate-policies>) page in the University Catalog. For information about how milestones are accomplished for a specific program, please refer to the doctoral program's handbook.