

CHEMISTRY, MINOR

The Chemistry Program

Students majoring in chemistry are afforded a variety of options upon graduation. Many go to graduate school in chemistry, biochemistry, engineering, materials science, medical school, dental school, law, or business. Others go directly into professional chemistry as employees of private industry, governmental agencies, or educational institutions. Departmental alumni/ae are university professors, research scientists, medical doctors, lawyers, dentists, executives, directors of research, secondary school teachers, and administrators.

Most majors engage in research projects for credit in association with a department faculty member. Normally this research is begun during the second semester of the junior year and continued through the senior year. However, there are opportunities for many students to work on projects prior to their junior year and/or over the summer through paid summer research fellowships administered through the department.

In addition to the chemistry minor, there is also a biochemistry minor which can be found here.

College (COLL) Courses and Advanced Placement Options

College (COLL) Courses

CHEM 100 Big Ideas in Chemistry, CHEM 150 First-Year Seminar, and CHEM 201 Color, Light, & Chemistry have been designed for non-science majors. CHEM 100 Big Ideas in Chemistry fulfills COLL 100 Critical Questions requirements; CHEM 150 First-Year Seminar fulfills COLL 150 First-Year Seminar requirements. CHEM 201 Color, Light, & Chemistry and CHEM 205 Advanced General Chemistry fulfill COLL 200 requirements in the NQR knowledge domain.

Students majoring in a science and/or intending a career in health sciences should take CHEM 103 General Chemistry I as their introductory chemistry course. Usually, the CHEM 103L General Chemistry Lab I laboratory course is taken along with CHEM 103 General Chemistry I.

Advanced Placement

Entering students who have been awarded credit for CHEM 103 General Chemistry I based on AP score of 4/5 or IB score of 5/6/7, as well as other well-prepared students who are planning to major in chemistry, are encouraged to take CHEM 205 Advanced General Chemistry to satisfy their General Chemistry requirements.

Students entering with AP score of 5 or IB score of 6/7: The student is awarded 5 credits of General Chemistry (CHEM 103 General Chemistry I, CHEM 103L General Chemistry Lab I, and CHEM 254 General Chemistry Laboratory II) and 3 chemistry elective credits (CHEM 2XX). Should this student choose not to take either CHEM 208 General Chemistry II and Introduction to Inorganic Chemistry or CHEM 205 Advanced General Chemistry, the CHEM 2XX elective credits will count as 3 credits for the Chemistry major or the minor. Should this student take CHEM 205 Advanced General Chemistry, the chemistry elective credits (CHEM 2XX) will not count toward a Chemistry major or minor but will still count toward general graduation requirements. For programs other than Chemistry, the CHEM 2XX credits will count as CHEM 208 General Chemistry II and Introduction to Inorganic Chemistry.

Students entering with AP score of 4 or IB score of 5: The student is awarded 4 credits of General Chemistry (CHEM 103 General Chemistry I and CHEM 103L General Chemistry Lab I). To pursue a Chemistry major, this student must take either CHEM 205 Advanced General Chemistry or CHEM 208 General Chemistry II and Introduction to Inorganic Chemistry, and either CHEM 254 General Chemistry Laboratory II or CHEM 256 Inorganic and Quantitative Laboratory Methods laboratory.

Well-prepared students without AP or IB credit who intend to major in Chemistry may elect to take CHEM 205 Advanced General Chemistry with instructor permission. These students must also take CHEM 103L General Chemistry Lab I laboratory, and either CHEM 254 General Chemistry Laboratory II or CHEM 256 Inorganic and Quantitative Laboratory Methods laboratory.

Required Credit Hours: 19-22 Core Requirements

Code	Title	Hours
General Chemistry		
CHEM 103	General Chemistry I	3
CHEM 208	General Chemistry II and Introduction to Inorganic Chemistry	3
or CHEM 205	Advanced General Chemistry	
CHEM 103L	General Chemistry Lab I	1
CHEM 254	General Chemistry Laboratory II	1
or CHEM 256	Inorganic and Quantitative Laboratory Methods	
Organic Chemistry		
CHEM 206	Organic Chemistry I	3
CHEM 206L	Organic Chemistry Lab I	1
CHEM 207	Organic Chemistry II for Life Sciences	3
or CHEM 209	Organic Chemistry II	
CHEM 253	Organic Chemistry Laboratory II	1
Advanced Course Requirements		6
Select one course from each group:		
CHEM 301	Physical Chemistry: Quantum Mechanics & Spectroscopy	
CHEM 309	Instrumental Analysis	
or CHEM 309L	Instrumental Analysis Laboratory	
CHEM 312	Inorganic Chemistry	
CHEM 341	Physical and Analytical Chemistry for Life Sciences	
CHEM 361	Global Topics in Chemistry	
CHEM 314	Biochemistry	
CHEM 403	Advanced Organic Chemistry	
CHEM 411	Polymer Science I	
CHEM 457	Organic Synthesis	
Total Hours		22