

CHEMISTRY (B.A.)

Broadly based in the liberal arts tradition, the B.A. in Chemistry has been designed for students interested in careers in areas that use chemistry as a base, such as the health-related professions, pharmaceutical marketing, secondary science education, chemistry-related industry, and/or entrance to graduate school. By combining this major with any one of a number of majors or minors, considerable flexibility is provided to the student. A specific articulation with the Education department (secondary option) is available and allows students to complete a dual major (B.A. in Chemistry, B.S. in Education) with Chemistry certification.

Integrative Studies Requirements

40 credits minimum

Code	Title	Credits	Completed
Major Requirements (48 credits)			
<i>Core Courses (16 Credits)</i>			
INCHEM-111	General Chemistry	4	_____
CHEM-112	Gen Chemistry II	4	_____
CHEM-221	Organic Chemistry I	4	_____
CHEM-222	Organic Chemistry II	4	_____
<i>Upper-Level Chemistry Courses (16 Credits)</i>			
Select one of the following:		4	_____
CHEM-340	Physical Chemistry		_____
CHEM-350	Analytical Chemistry		_____
CHEM-360	Inorganic Chemistry		_____
CHEM-370	Biochemistry		_____
CHEM-490	Adv Special Topics		_____
Select one of the following:		4	_____
CHEM-325	Synthesis & Characterization		_____
CHEM-345	Empirical Physical Chemistry		_____
CHEM-355	Experimental Chemical Analysis		_____
<i>Select two additional Chemistry courses at the 300/400 level</i>		8	_____
<i>Related Field Courses (16 Credits)</i>			
INBIO-110	Cells and Molecules	4	_____
MATH-211	Calculus I	4	_____
INPHYS-141	College Physics I	4	_____
	or INPHYS-241 University Physics I		_____
PHYS-142	College Physics II	4	_____

or PHYS-242 University Physics II

Total Credits

48

Electives

Select additional courses to reach a total of 120 credits.

Degree Requirements

120 credits

40 credits at the upper-level

Upon completion of the Chemistry B.A. degree, students will be able to:

- Understand a broad range of knowledge in analytical, biochemical, inorganic, organic, and physical chemistry.
- Apply their knowledge and critical thinking skills to the solution of theoretical and practical problems in chemistry.
- Understand the basic theory and use of modern instrumentation. Specifically, to be able to demonstrate the ability to acquire, interpret, and analyze data using instrumental methods.
- Demonstrate laboratory skills appropriate to the study of chemistry, including the ability to perform quantitative or qualitative chemical measurements.
- Demonstrate laboratory skills appropriate to the study of chemistry, including the ability to perform basic synthetic reactions.
- Demonstrate laboratory skills appropriate to the study of chemistry, including the ability to maintain a laboratory notebook.
- Demonstrate laboratory skills appropriate to the study of chemistry, including the ability to work safely in a laboratory setting.
- Prepare effective written scientific reports and oral presentations assisted by the use of computer technology (word processing, spreadsheets, chemical structure drawing programs, and chemical information retrieval services).
- Understand the importance of chemistry as it applies to industrial, economic, environmental, and social issues, and maintain an interest in the study and practice of chemistry.
- Be successful in pursuing graduate studies or employment in chemistry or a chemically-related field.