CHEMISTRY (CH) MAJOR

What you will study

As a chemistry major at Alverno, you will learn to not only know the answers to chemical problems, but also be able to develop a deep understanding of your solutions. In your learning you will have many opportunities to communicate this deep understanding in both written and spoken word, and you will gain skills in speaking on your feet to audiences with a wide variety of scientific backgrounds about real-world chemical issues and misconceptions. A chemistry major provides the skills and knowledge to be an informed citizen, effective advocate and community leader in addressing community health and environmental issues.

In our laboratory courses you not only learn the basic skills and knowledge inherent to chemistry, but also design, implement and evaluate your own investigations. This is true across the curriculum from the 100 to 400 level. You will have hands on experience with state of the art instrumentation such as nuclear magnetic resonance spectroscopy, Infrared, ultraviolet, fluorescence and visible spectroscopy, gas and high performance liquid chromatography and mass spectrometry. Chemistry majors have strong mentor relationships with faculty. And, chemistry majors at Alverno are interns across the Milwaukee area and beyond, applying their knowledge and abilities in a variety of settings. These internships lead to networking opportunities and in many cases employment in chemistry right out of college.

Requirements

Code	Title	Credits
Beginning Requirements		
CH-213 & 213L	Chemistry of Bioorganic Molecules and Chemistry of Bioorganic Molecules Lab	4
MT-152	Calculus 1	4
Intermediate Requirements		
MT-253	Calculus 2	4
CH-221 & 221L	Organic Chemistry 1 and Organic Chemistry 1 - Lab	4
CH-234 & 234L	Analytical Chemistry/Quantitative Analys and Analytical Chem-Quant Analysis Lab	4
CH-260 & 260L	Chemistry of Inorganic Materials and Chemistry/Inorganic Materials - Lab	4
CH-328 & 328L	Biochemistry and Biochemistry - Lab	4
CH-322 & 322L	Organic Chemistry 2 and Organic Chemistry 2 Lab	4
CH-374	CH Assessment in Effective Citizenship	0
CH-399	Formal Introduction to Advanced Work	0
PH-231 & 231L	Algebra-Based Physics I and Physics Lab	4
or PH-241 & 241L	Calculus-Based Physics 1 and Physics Lab	
PH-232	Algebra-Based Physics 2	3
or PH-242	Calculus-Based Physics 2	
CH-337	Instrumental Methods of Analysis Lab	3
or CH-395	Biochemistry of Micronutrients	
Advanced Requirements		
INTERN-383	Internship Seminar	2
or CH-483		
CH-441	Physical Chemistry 1	3
CH-442	Physical Chemistry 2	3
CH-450L	Physical Chemistry Lab	2
CH-414	Chemistry Professional Portfolio	0