

CHEMISTRY, BA

Bachelor of Arts in Chemistry (315000BA)

More on the Chemistry major (<https://www.uakron.edu/chemistry/undergraduate.dot>)

Program Description

Chemistry is an experimental science that seeks to understand the structure and function of molecules. Chemists synthesize new materials, and study their properties and how they interact with other compounds. The BS degrees offered by the department prepare students for independent laboratory work and research. The BA degree is less strongly focused on research and prepares students for professional degrees like medicine, dentistry and pharmacy.

Admission, Retention and Graduation

The student must maintain a minimum 2.00 grade point average. The student must obtain a grade of C- or better in all required chemistry courses.

The following information has official approval of **The Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Three year accelerated option: for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through [College Credit Plus Program \(CCP\)](#) courses. Credits for qualifying AP scores or [CCP](#) courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or [grade in a CCP](#) course. Students may also receive credit by examination or via placement tests, where appropriate.

Requirements Summary

Code	Title	Hours
	General Education Requirements (https://bulletin.uakron.edu/undergraduate/general-education/)	36
	College of Arts & Sciences Requirements	14
	Chemistry Requirements	31-33
	Physics Requirements	8
	Mathematics Requirements	8
	Advanced Chemistry Electives	5
	Additional Credits for Graduation *	18-16
Total Hours		120

* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
Academic Foundations		12
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:221	Analytic Geometry-Calculus I	
MATH:222	Analytic Geometry-Calculus II	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
Breadth of Knowledge		22
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
CHEM:151	Principles of Chemistry I	
CHEM:152	Principles of Chemistry I Laboratory	
CHEM:153	Principles of Chemistry II	
BIOL:111	Principles of Biology I	
BIOL:112	Principles of Biology II	
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
<i>Social Sciences: 6 credit hours</i>		
Diversity		
Domestic Diversity		
Global Diversity		
Integrated and Applied Learning		2
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		36

College of Arts & Sciences Requirements

Code	Title	Hours
Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.		
2 Year Language Proficiency		14
101	Beginning I	
102	Beginning II	
201	Intermediate I	
202	Intermediate II	

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

Chemistry Requirements ¹

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:423	Analytical Chemistry I	3
CHEM:424	Analytical Chemistry II	3
Select one of the following:		4-6
CHEM:305	Physical Chemistry for the Biological Sciences	
-or-		
CHEM:313 & CHEM:314	Physical Chemistry Lecture I and Physical Chemistry Lecture II	
Total Hours		31-33

¹ If a grade of less than C- is earned in a required chemistry course, the student must successfully repeat that course within a year.

Physics Requirements

Code	Title	Hours
Select one of the following:		8
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
-or-		
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
Total Hours		8

Mathematics Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
Total Hours		8

Advanced Chemistry Electives

Code	Title	Hours
Select at least five credits of the following:		5
CHEM:199	Introductory Seminar in Chemistry	

CHEM:381	Advanced Chemistry Laboratory II	
CHEM:399	Internship in Chemistry ¹	
CHEM:401	Biochemistry Lecture I	
CHEM:402	Biochemistry Lecture II	
CHEM:463	Advanced Organic Chemistry	
CHEM:472	Advanced Inorganic Chemistry	
CHEM:480	Advanced Chemistry Laboratory III	
CHEM:497	Honors Project in Chemistry	
CHEM:498	Special Topics in Chemistry ²	
CHEM:499	Research Problems in Chemistry ²	
PLYS:403	Polymer Chemistry	
PLYS:404	Polymer Physics	
PLYS:405	Polymer Science Laboratory	
Total Hours		5

¹ May be repeated for a total of six credits.

² May be repeated for a total of eight credits.