

Minor in Chemistry

Why study chemistry?

At KU Chemistry, we have faculty dedicated to mentoring both undergraduate and graduate students and to helping each student achieve scientific maturity. In addition to required classroom and laboratory courses, options exist for doing research in exciting areas of mainstream chemistry, including emerging fields of microfluidics, precision medicine and sustainable catalysis.

Undergraduate Program

The undergraduate program in the Department of Chemistry has two primary missions. One of these is to help its majors attain a mastery of the discipline in preparation for further study in chemistry or a chemical science, or for immediate employment in chemistry. The other is to provide an opportunity for students majoring in other disciplines to acquire a basic knowledge of the fundamental areas of chemistry.

The curriculum leading to the **Bachelor of Science (B.S.)** degree, a rigorous program certified by the American Chemical Society, consists of a full spectrum of chemistry courses as well as supporting courses in mathematics and physics, and is designed to prepare students for a professional career in chemistry. The **Bachelor of Arts (B.A.)** degree program, with fewer required courses, allows students to obtain a broader knowledge of areas outside of chemistry, or to tailor their chemistry program for specific or unique objectives. We also offer a **Minor** in chemistry for those seeking a secondary area of study.

Requirements for the Minor

The minor allows students outside the department to obtain a strong, distributed background in the discipline. It is particularly useful for students anticipating careers in medicine, health professions, biological sciences, environmental sciences, chemical engineering, business, law, secondary education, or any career in which a basic understanding of the molecular sciences is helpful. A total of 23 credit hours is required, including 13 hours of upper-division work and at least 2 upper-division laboratories. Students should see a chemistry department advisor early in the junior year.

Code	Title	Hours
Chemistry Minor Course Requirements		
Students selecting this minor must complete the following:		
Mathematics and Physics		
Mathematics: (choose one of the following (MATH 115 & MATH 116 6-12 recommended))		
MATH 115 & MATH 116	Calculus I and Calculus II	
MATH 125 & MATH 126 & MATH 127	Calculus I and Calculus II and Calculus III	
Physics: (Choose one of the following (PHSX 114 & PHSX 115 8-9 recommended))		
PHSX 114 & PHSX 115	College Physics I and College Physics II	

PHSX 211 & PHSX 216 & PHSX 212 & PHSX 236	General Physics I and General Physics I Laboratory and General Physics II and General Physics II Laboratory
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Chemistry Courses

Chemistry for the Chemical Sciences I. Satisfied by one of the following:		5
CHEM 170	Chemistry for the Chemical Sciences I	
CHEM 130	General Chemistry I	
CHEM 190 & CHEM 191	Foundations of Chemistry I, Honors and Foundations of Chemistry I Laboratory, Honors	
Chemistry for the Chemical Sciences II. Satisfied by one of the following:		5
CHEM 175	Chemistry for the Chemical Sciences II	
CHEM 135	General Chemistry II	
CHEM 195 & CHEM 196	Foundations of Chemistry II, Honors and Foundations of Chemistry II Laboratory, Honors	
Organic Chemistry I. Satisfied by one of the following:		3
CHEM 310	Fundamentals of Organic Chemistry	
CHEM 330	Organic Chemistry I	
CHEM 380	Organic Chemistry I, Honors	
Organic Chemistry Lab I. Satisfied by:		2
CHEM 331	Organic Chemistry I Laboratory	
Chemistry Required Elective Group I		5
Students selecting this minor must complete one of the following:		
Analytical Chemistry Lecture and Laboratory. Satisfied by:		5
CHEM 400 & CHEM 401	Analytical Chemistry and Analytical Chemistry Laboratory	
Biological Physical Chemistry Lecture and Laboratory. Satisfied by:		
CHEM 520	Biological Physical Chemistry with Laboratory *	
Chemistry Required Elective Group II		3-4
Students selecting this minor must complete one of the following:		
Biological Physical Chemistry. Satisfied by:		
CHEM 510	Biological Physical Chemistry	
Physical Chemistry I. Satisfied by:		
CHEM 530	Physical Chemistry I	
Systematic Inorganic Chemistry. Satisfied by:		
CHEM 660	Systematic Inorganic Chemistry	

*Students who elect to take CHEM 520 from Option Group 1 cannot take CHEM 510 or CHEM 530 from Option Group 2.

Minor Hours & Minor GPA

While completing all required courses, minors must also meet each of the following hour and GPA minimum standards:

Minor Hours

Satisfied by 23-24 hours of minor courses.

Minor Hours in Residence

Satisfied by a minimum of 9 hours of KU resident credit in the minor.

Minor Junior/Senior Hours

Satisfied by a minimum of 13 hours from junior/senior courses (300+) in the minor.

Minor Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in all departmental courses in the minor. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa>).