## 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 $\underline{\underline{\underline{i n}}}$ chemistry for those seeking a secondary area of study.

## Requirements for the Minor

The minor allows many non-chemistry majors to obtain a strong, distributed background in the discipline. It is particularly useful for students in STEM fields or pre-professional programs that require at least one year of chemistry coursework but whose career plans would be enhanced by a deeper understanding of the molecular sciences. Due to extensive overlap in required chemistry coursework, the Chemistry minor is not available to students majoring in Biochemistry and Chemical Engineering.

## 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 I
MATH 125 Calculus I
\& MATH 126 and Calculus II
\& MATH 127 and Calculus III
Physics: (Choose one of the following (PHSX 114 \& PHSX 115 8-9

## recommended))

PHSX 114 College Physics I
\& PHSX 115 and College Physics II
PHSX 211 General Physics I
\& PHSX 216 and General Physics I Laboratory
\& PHSX 212 and General Physics II
\& PHSX 236 and General Physics II Laboratory

## Chemistry Courses

Chemistry I. Satisfied by one of the following (CHEM 170
recommended):

| CHEM 170 | Chemistry for the Chemical Sciences I |
| :--- | :--- |
| CHEM 130 | General Chemistry I |
| CHEM 190 | Foundations of Chemistry I, Honors |
| \& CHEM 191 | and Foundations of Chemistry I Laboratory, <br>  Honors |

Chemistry II. Satisfied by one of the following (CHEM 175
recommended):
CHEM 175 Chemistry for the Chemical Sciences II
CHEM 135 General Chemistry II
CHEM 195 Foundations of Chemistry II, Honors
\& CHEM 196 and Foundations of Chemistry II Laboratory, Honors
Organic Chemistry I. Satisfied by one of the following:
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
Students selecting this minor must complete one of the following:
Analytical Chemistry Lecture and Laboratory. Satisfied by:
CHEM 400 Analytical Chemistry
\& CHEM 401 and Analytical Chemistry Laboratory
Physical Chemistry Lecture and Lab. Satisfied by one of the following
(CHEM 520 recommended): *
CHEM 520 Biological Physical Chemistry with Laboratory
CHEM 530 Physical Chemistry I
\& CHEM 535 and Physical Chemistry II
\& CHEM 537 and Physical Chemistry Laboratory
Chemistry Required Elective Group II
Students selecting this minor must complete one of the following:
Physical Chemistry Lecture. Satisfied by one of the following
(CHEM 510 Recommended):
CHEM 510 Biological Physical Chemistry
or CHEM 531Physical Chemistry I
Systematic Inorganic Chemistry. Satisfied by:
CHEM 660 Inorganic Chemistry
*Students who select this option for Elective Group I cannot take CHEM 510 or CHEM 530 from Elective Group II.

## 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 (https://sis.ku.edu/gpa-calculator/).

