The Bachelor of Science with a major in chemistry requires a minimum of 120 s.h., including 69 s.h. of work for the major (20 s.h. in foundation chemistry courses, 27 s.h. in advanced chemistry, and 22 s.h. in supporting coursework). Students must earn at least 20 s.h. in advanced chemistry courses at the University of Iowa. They must maintain a g.p.a. of at least 2.00 in all courses for the major and in all UI courses for the major. Students also must complete the College of Liberal Arts and Sciences GE CLAS Core.

The B.S. degree with a major in chemistry is certified by the American Chemical Society (ACS) when a biochemistry course is included. An ACS-approved program offers a broad-based and rigorous chemistry education that provides students with the intellectual, experimental, and communication skills to become effective scientific professionals in chemical and other related fields. The program also provides all the prerequisites for graduate work in chemistry or biochemistry and in other biomedical areas with a molecular focus.

Courses in the chemistry major have prerequisites, so they must be taken in the correct order. Advanced chemistry courses are built on the chemistry foundation courses. Most advanced courses are taught only once a year. Students should consult their academic advisors and plan their course schedules carefully. They should take CHEM:2021 Fundamentals of Chemical Measurements during the first semester of the second year.

Students may not use a course to fulfill more than one requirement.

The B.S. with a major in chemistry requires the following coursework.

### Code Title Hours

**Chemistry Foundation Courses** 20

- CHEM:1110 Principles of Chemistry I 4
- CHEM:1120 Principles of Chemistry II 4

**Advanced Chemistry Courses** 27

- CHEM:2210 Organic Chemistry I 6
- CHEM:2220 Organic Chemistry II 6
- CHEM:2230 Organic Chemistry I for Majors 6
- CHEM:2240 Organic Chemistry II for Majors (preferred) 6

**Mathematics** 8

- MATH:1550 Engineering Mathematics I 4
- MATH:1560 Engineering Mathematics II 4

**Introductory Physics** 8

- PHYS:1511 College Physics I 4
- PHYS:1512 College Physics II 4

**Science Electives and Research** 6

- CHEM:3994 Undergraduate Research 1-4
- BIOC:3110 Biochemistry 3
- BIOC:3120 Biochemistry and Molecular Biology I 3
- BIOC:3130 Biochemistry and Molecular Biology II 3

ACS Certification Requirement

Students who want an ACS certified degree complete one of these optional courses (also listed above under “Science Electives and Research”).

### Code Title Hours

- BIOC:3110 Biochemistry 3
- BIOC:3120 Biochemistry and Molecular Biology I 3
Teacher Licensure

Students interested in teaching in elementary and/or secondary schools should seek admission to the Teacher Education Program (TEP) in the College of Education.

To qualify for licensure in secondary teaching, students in the TEP complete a degree in education as well as a related College of Liberal Arts and Sciences degree. See Apply on the College of Education website for details on requirements and deadlines for applying to the College of Education and about TEP choices of majors leading to licensure.