

Chemistry

The chemistry curriculum provides broad and rigorous training in the five traditional branches of chemistry—analytical, bio, inorganic, organic and physical—to prepare students desiring to work as professional chemists, to teach chemistry or to pursue advanced degrees in chemistry, biochemistry or medicine.

Chemistry Program Learning Outcomes

Graduates of the Chemistry Program will:

1. Apply theoretical principles, models and conventions to the study of chemistry.
2. Design and perform experiments using the scientific method.
3. Analyze experimental data to draw conclusions about the physical world.
4. Effectively communicate chemistry concepts through written means.
5. Effectively communicate chemistry concepts through oral means.

A *Chemistry major* completes at least 42 credits of chemistry course work as follows:

CHEM 111, 112, 271, 331, 375, 431, 435 and 496, plus 12 credits of Chemistry electives with course numbers above 200. Chemistry majors are also required to complete MATH 231 and 232 (8 credits), CPSC 111 (3 credits), and PHYS 231 and 232 (10 credits). Students (especially those preparing for graduate study in chemistry) are also advised to complete MATH 233, 331 and 431.

Students in the Pre-Medical Chemistry track must complete CHEM 272 as part of the 12 elective Chemistry credits, as well as BIOL 200, 311, 312, 335 and 338.

A *Chemistry minor* consists of at least 21 semester hours of chemistry, which must include CHEM 111, 112, and 11 credits of Chemistry electives with course numbers above 200.

A *Chemistry concentration* consists of 28 semester hours of chemistry, which must include CHEM 111, 112, 496, and 17 credits of Chemistry electives with course numbers above 200.

Suggested Program for Chemistry Major

First Year: CHEM 111, 112; MATH 231, 232; BIBL 111, 115; ENGL 111; GSCI 100; core curriculum course.

Second Year: CHEM 271, 272, BIBL 116, ENGL 341; MATH 210, 233, PHYS 231, 232.

Third Year: CHEM 331, 332; 375, 435; BIBL 360-370 book study; CPSC 111; ICST 454; MATH upper division elective, core curriculum 2 courses.

Fourth Year: CHEM 431, 434, 296; THEO 230; core curriculum 4 courses; electives 2 courses.

Note: MATH 231 and 232 are deferred until second year if student needs MATH 129.