

# CHEMISTRY & BIOCHEMISTRY

[Overview](#)[Academics & Admissions](#)[Programs](#)[Minors](#)[Courses](#)[Faculty](#)

## Undergraduate Studies

---

All of the undergraduate majors in the department require Chem 105, 106, 115, and 116. The prerequisite for Chem 105 is a minimum ACT mathematics score of 25 (SAT 580), or B minimum in Chem 101, or B minimum in Math 121 or 123, or B minimum in Math 125 or higher. See the degree requirements under Programs.

## Graduate Studies

---

For admission to full standing in the M.S. program or the Ph.D. program, applicants must have completed a baccalaureate degree in chemistry or a closely related subject. All applicants should have completed the following undergraduate core requirements:

- Analytical chemistry: quantitative analytical chemistry and instrumental analysis
- Biochemistry: one semester
- Inorganic chemistry: one-semester course plus lab
- Organic chemistry: two semesters with lab
- Calculus-based physical chemistry: two-semester, junior-level course

Chemistry is a multidisciplinary science, and some applicants with undergraduate degrees in closely related areas may wish to pursue an advanced degree in chemistry. Applicants who have not completed the above core requirements may still be admitted on a case-by-case basis and will be required to remedy all deficiencies. If an applicant has not completed two semesters of organic chemistry, two semesters of physics, and two semesters of calculus, they will be asked to complete these courses and then reapply.

**GRE and TOEFL Scores:** Applicants must submit a satisfactory GRE score on the general exam. The chemistry subject exam is not required but can enhance an applicant's chances for admission. In addition, students whose native language is not English must report a satisfactory TOEFL score to be admitted.

**Preliminary Examinations:** All entering graduate students are required to take four orientation examinations in the discipline areas of analytical, inorganic, organic, and physical chemistry and biochemistry. These exams are ACS standardized exams or equivalent and test the student's mastery of these subject areas at the undergraduate level. The results of these examinations are used to place students in the appropriate courses for their first semester of enrollment. Students who score low on a particular exam will be judged to be deficient in that area and will be required to take the appropriate remedial or intermediate courses before taking any additional course work from that area.

Applicants for the D.A. program are expected to have received a master's degree (M.S.) in chemistry. However, students with only an undergraduate degree in chemistry may enroll in the program provided they remedy any course deficiencies and complete two semesters (6 hours) of laboratory or theoretical thesis research (Chem 697). The results of this research must be presented to the department in the form of a written report and a seminar presentation. If the doctoral thesis is based on the same project, it must be a substantial extension of the initial work presented in this report.

See the degree requirements under Programs.

