

DIVISION OF CHEMISTRY AND BIOCHEMISTRY

Web Site: <http://www.twu.edu/chemistry-biochemistry>

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The Division of Chemistry and Biochemistry (<http://www.twu.edu/chemistry-biochemistry/>) offers programs leading to the B.S. in Biochemistry and in Chemistry, both with or without certification by the American Chemical Society (ACS) and to the M.S. in Chemistry. The ACS certified degrees are recommended to those students interested in pursuing advanced degrees in chemistry or biochemistry. The B.S. in Biochemistry is recommended for those students interested in pursuing careers in health-related professions. Academic minors are offered in chemistry and in general science. Teacher certification to teach general science and physical science in secondary schools is also offered.

The objectives of the undergraduate chemistry program are to lead the student to

- achieve an understanding of the chemical and physical behavior of material substances and of the energy changes accompanying this behavior and
- to prepare students for advanced degrees, teaching, or professional careers in the sciences. The programs offered prepare the students for graduate studies in chemistry or biochemistry, admission to medical, dental, or pharmacy school, or a career as a professional chemist or teacher.

Graduates are employed as chemists, scientists, and managers in research, development, and production positions in a variety of settings and fields including pharmaceuticals, cosmetics, food products, forensics, agricultural chemicals, medical research, and environmental law enforcement. Others go on to earn master's and doctoral degrees. Pre-professional graduates have successfully earned medical/dental/pharmacy degrees from medical/dental/pharmacy schools in and outside of Texas.

Students who have taken advanced chemistry courses in high school may earn advanced placement credit for CHEM 1113. Advanced placement may be earned by a satisfactory score on the Advanced Placement Examination in Chemistry or on a departmentally-administered examination.

For more information about the Department, please visit the Division of Chemistry and Biochemistry (<http://www.twu.edu/chemistry-biochemistry/>) webpage.

Undergraduate Degrees Offered

- Minors (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/minors/>)
- Certificates (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/certificates/>)
- B.S. in Biochemistry (ACS Certification) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/biochemistry-acs/>)
- B.S. in Biochemistry (Pre-Health Majors) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/biochemistry-bs/>)
- B.S. in Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/chemistry-bs/>)
- B.S. in Chemistry (ACS Certification) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/chemistry-bs-american-chemical-society-certification/>)
- B.S. in Chemistry (Environmental Chemistry) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/chemistry-bs-environmental/>)
- B.S. in Chemistry/Biochemistry (7-12 Science Certification) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/chemistry-bs-7-12-science-teacher/>)
- B.S. in Chemistry/Biochemistry (6-12 Physical Science Certification) (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/chemistry-bs-6-12-physical-science-teacher/>)
- B.S. in Environmental Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/environmental-chemistry-bs/>)
- B.S. in Environmental Science (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/environmental-science-bs/>)
- Accelerated B.S. in Chemistry/M.S. in Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/accelerated-chemistry-bs-ms/>)
- Accelerated B.S. in Chemistry (ACS)/M.S. in Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/accelerated-chemistry-ac-s-bs-ms/>)
- Accelerated B.S. in Biochemistry/M.S. in Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/accelerated-biochemistry-bs-ms/>)
- Accelerated B.S. in Biochemistry (ACS)/M.S. in Chemistry (<http://catalog.twu.edu/undergraduate/arts-sciences/chemistry-biochemistry/accelerated-biochemistry-ac-s-bs-ms/>)

Course Load

Recommended course loads for both chemistry and biochemistry majors are 14-18 semester credit hours per semester, but students are ultimately responsible for developing individual course load plans with their academic advisors. When determining course loads, students should be prepared to spend a minimum of two hours outside of class for each lecture period and at least one-half hour outside of class for laboratories in order to be successful in these courses.

Special Requirements for Majors

Only courses in which a grade of C or higher is earned may be counted toward a departmental major. In addition, to register for any course required for the major, a grade of C or better in any of its prerequisites is required. Finally, any course required for the degree cannot be taken more than two times in order to achieve a passing grade (C or higher). All students pursuing the ACS certified degree must also register for CHEM 4983 and CHEM 4991. A paper describing the research project must be written and approved by the ACS for certification.

Graduate Courses

Please refer to the Graduate Catalog (<http://catalog.twu.edu/graduate/>) for information regarding graduate courses.