

PROGRAMS AVAILABLE: Bachelor of Science

Experience a comprehensive, hands-on education in the central science.

Chemistry, referred to as the central science, is an excellent foundation for the health professions, research, industry, education and more. Creighton University offers you a Bachelor of Science (B.S.) in Chemistry or a Bachelor of Science in Chemistry (B.S.Chm.). This B.S. Chm. is ACS-certified in Chemistry or Biochemistry.

The B.S.Chm. degree allows you to specialize in Chemistry or Biochemistry. The B.S. can include training in chemistry education if you are interested in teaching. Creighton's chemistry program is endorsed and certified by the American Chemical Society (ACS).

The department typically ranks in the top 5 percent of all (approx. 650) reporting institutions for production of ACS-certified B.S. degree Chemistry majors. B.S.-only departments considered, it has historically ranked in the top five in the nation.

The department averages about 35-40 graduates in chemistry each year, more than many larger schools, and majors enjoy close student-faculty collaboration in the classroom as well as abundant opportunities for undergraduate research. As an undergraduate-only department, many students are paid stipends to serve as tutors and teaching assistants.

WHAT YOU'LL LEARN

- The ability to problem solve in unique and creative ways, utilizing both team-based and independent learning.
- An understanding of chemistry that is highly regarded by employers, graduate programs and health professions schools.
- Access to Creighton's four health professions schools—dentistry, nursing, medicine, and pharmacy and health professions—which are all located on one walkable campus and provide great opportunities for research.
- Faculty-mentored research, including opportunities to be published in scientific journals and present at national meetings.

EXPERIENTIAL LEARNING OPPORTUNITIES

A large majority of Creighton chemistry and biochemistry majors perform research with faculty mentors. Many do research during the academic year in the labs of the chemistry faculty, while others work in laboratories of chemical scientists in other physical science departments of the College of Arts and Sciences, the School of Medicine and the School of Pharmacy and Health Professions. In addition, other Omaha-area opportunities for undergraduate research include programs at the University of Nebraska Medical Center and Omaha Veterans Administration Medical Center.

Some students choose a summer research experience at Creighton or in programs hosted by National Science Foundation-funded colleges and universities across the country.

Faculty have co-authored manuscripts with 14 different undergraduate research students and procured over \$600,000 in external funding in the past year.

CAREER OUTLOOK

Creighton Chemistry majors are particularly successful in attaining jobs and admission to top professional and graduate programs (with graduate students typically awards \$25-30K annual stipend).

Approximately a third of Creighton Chemistry majors go directly to a health professional school in fields such as medicine, dentistry or pharmacy. Another third enroll in Ph.D. programs in chemistry or chemistry-related (biochemistry, chemical engineering, environmental science) disciplines. The remaining one-third participate in organized volunteer programs, Peace Corps, Teach for America, Jesuit Volunteer Corps), obtain employment in chemistry-related fields or enroll in MBA or J.D. programs.

CAREER OUTCOMES

Employment Opportunities

Many graduates have gone on to pursue advanced studies in a wide range of specialties from biochemistry and pharmacology to food chemistry and nutrition. Our students find success at leading corporations, pharmaceutical companies, research laboratories and a host of academic institutions, including:

- Alegent Creighton Health
- American Red Cross
- Boys Town National Research Hospital
- The Retina Group
- Henry Jackson Foundation
- Agilent Technologies

Graduate Studies

Many of our students have gone on to prestigious graduate programs and schools, such as:

- Harvard University
- Yale School of Medicine
- Duke University
- University of Virginia
- Stanford University

CHEMISTRY TRACKS

Four tracks, including the general track, are available through the department.

Bachelor of Science in Chemistry

- Biochemistry Track
- Chemistry Track

Bachelor of Science

- Generalist Track
- Chemistry Education Track

For more details on the full curriculum, visit:

<http://catalog.creighton.edu/undergraduate/arts-sciences/chemistry/#degreestext>

CLASSES FOR THE GENERAL TRACK

CHM 315	Quantitative and Statistical Analysis 1	4
CHM 321	Organic Chemistry I	3
CHM 322	Organic Chemistry I Laboratory	1
CHM 323	Organic Chemistry II	3
CHM 324	Organic Chemistry II Laboratory	1
CHM 341	Physical Chemistry I	3
CHM 342	Physical Chemistry Laboratory	2
CHM 343	Physical Chemistry II	3
CHM 456	Instrumental Analysis	3
CHM 466	Instrumental Analysis Laboratory	2

Select three credit hours from the following list: 3

CHM 381	Fundamentals of Biochemistry
CHM 445	Chemical Thermodynamics
CHM 446	Statistical Mechanics
CHM 451	Inorganic Chemistry I
CHM 523	Bioorganic Chemistry
CHM 525	Organic Spectroscopic Analysis
CHM 544	Quantum Chemistry
CHM 545	Advanced Kinetics
CHM 576	Protein Biochemistry

Complete option listing on catalog entry

Select two credit hours from the following list: 2-3

CHM 351	Descriptive Inorganic Chemistry
CHM 382	Biochemistry Laboratory
CHM 392	Forensic Chemistry
CHM 496	Directed Independent Research I
& CHM 497	and Directed Independent Research II
CHM 515	Green and Sustainable Chemistry Laboratory
CHM 528	Polymer Chemistry Laboratory
CHM 548	Chemical Applications of Spectroscopy
CHM 549	Computational Chemistry

Total Credits 30-31

STUDENT ORGANIZATIONS AND ACTIVITIES

Chemistry Club

The Chemistry Club offers extra-curricular activities and networking with faculty and other students. It also provides opportunities to volunteer with activities for area high school and grade school students, including Chemistry Field Day, the Musichemical Melodious Manifestation and various camps for younger students.