

Special Features

• Honors Courses

The Department offers honors classes in chemistry. Honors courses focus on in-depth content coverage, active participation, and rigorous literate activities that create a more interactive academic experience.

• Scholarships and Awards

The Hach Chemical Company and the Cornell Stanhope Scholarships are offered through the Department. Other scholarships and awards are also available.

• Teaching and Research Opportunities

A wide range of teaching and research opportunities within the Department are readily accessible to undergraduate students.

The City

of Fort Collins is located in the foothills of the Colorado Rockies. Colorado State University offers an ideal setting in which to live and learn. Close to campus are world-famous Rocky Mountain National Park, the Poudre River, and Horsetooth Reservoir. These recreation areas offer endless opportunities for outdoor activities (such as skiing, hiking, camping, whitewater rafting, fishing, boating, and water skiing). Sunny Fort Collins, a mid-sized city of 106,000 offers the safety, tranquility, and friendliness of a small town combined with the services of a metropolitan area. Located 65 miles north of Denver, Fort Collins is easily accessible by car, bus, or air. *Money Magazine*, in its annual "Best Places to Live" report, ranked Fort Collins first in the western U.S. among small cities (population of 100,000 to 249,999).

More Information

Department of Chemistry
B101 Chemistry
Colorado State University
Fort Collins, CO 80523
(970) 491-6381
<http://www.chm.colostate.edu/>

Undergraduate Studies In
CHEMISTRY

**Colorado
State
University**



The University

was established as one of the nation's land grant institutions in 1870. Colorado State University has a reputation for worldwide excellence in many of its academic programs from the undergraduate to the post-graduate level. More than 22,000 students from all over the United States and from over 100 countries attend the University. Colorado State offers the setting, facilities, and faculty necessary to pursue academic excellence.

The College

of Natural Sciences at Colorado State University provides a broad range of educational opportunities in the behavioral, biological, mathematical, and physical sciences. The major role of the College is to prepare students for productive careers and meaningful lives. The College offers

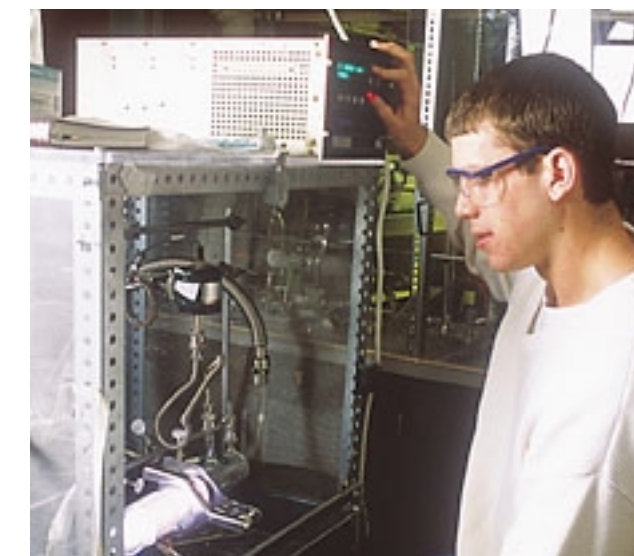
undergraduate degree programs in the basic sciences and meets the needs of students throughout the University for science courses appropriate to their academic and professional objectives. As a research university, a rich environment for student education through individualized mentoring by faculty, interactions with a diverse group of fellow students, small group discussions, participation in research projects, and internships with companies and external agencies.

The Department

of Chemistry at Colorado State University has received national recognition by the Gorman Report and has been named a Program of Excellence by the Colorado Commission on Higher Education and a Program of Research and Scholarly Excellence by CSU. The Department is at the forefront of chemical research.

The Faculty

in the Department of Chemistry at Colorado State University is nationally and internationally recognized for excellence in research and teaching. Faculty members have been chosen as University Honors Professors, have received CSU's Distinguished Teaching Awards and Distinguished





Service Awards, and have been honored by the American Chemical Society (ACS), by election to the National Academy of Sciences, and by editorships of ACS publications. Faculty have also received national and international honors for teaching and research by recognition as Dreyfus Teacher-Scholars, Sloan Fellows, Research Corporation Teacher Scholars, and Humbolt Fellows.

The Science

of chemistry is often described as a “central” science, partly because of its importance in all of the present and emerging areas of basic science and technology, and partly because of its impact on life in general. Chemists study the atomic structure of physical matter and analyze how it changes. More specifically, they analyze how basic atomic and molecular species are combined and can be manipulated to produce useful or improved products.

The Curriculum

for chemistry majors develops a solid foundation in general chemistry and mathematics followed by coursework in organic chemistry, quantitative analysis, physical chemistry, inorganic chemistry, and physics. The curriculum is rounded out by courses in the liberal and communications arts. Students who wish to work as professional chemists may arrange their programs to obtain profes-

sional certification by the American Chemical Society. This objective entails additional chemistry courses in inorganic chemistry and instrumental analysis. Additionally, students are encouraged to participate in undergraduate research. Those students whose career goals involve the health professions or secondary teaching generally take advanced coursework in biology or education. Students have access to state-of-the-art laboratories and equipment including NMR, FTIR, UV/Vis, fluorescence, Raman and mass spectrometers, vacuum lines, x-ray diffraction, surface and materials analysis, and column chromatography. Additionally, there are ample opportunities for undergraduate students to participate in graduate level research in the laboratories of individual faculty members. Undergraduate research is strongly encouraged for any student planning a career in chemistry.



Career Opportunities

The study of chemistry prepares students for a variety of careers, and the program at Colorado State University has been designed to give graduates the background necessary to enter any one of these interesting and exciting areas. Chemists are employed in a wide array of professional fields in private industry, government, and education. Chemists work in research, development, analysis and testing, consulting, industrial quality control, environmental resource management, and forensics. Principal employers are petrochemical firms, biotechnology firms, consumer chemical firms, environmental testing laboratories, agricultural companies, governmental regulatory agencies, governmental and educational research laboratories, and manufacturing firms. Participation in internships, volunteer activities, or cooperative education opportunities is highly recommended to enhance your practical training and development. Recent Colorado State University BS chemists with research experience have been very successful securing jobs in the chemical industry with competitive starting salaries. Graduates who continue on for advanced studies can obtain more responsible positions with the possibility of rising to top professional levels. Career occupations include but are not limited to:

- Agricultural chemist
- Air and water quality analyst
- Biochemical technician
- Chemical sales and marketing representative
- Clinical chemist
- Consultant
- Educator
- Forensic analyst
- Laboratory Technician/Bench chemist
- Materials analyst
- Pharmaceutical chemist
- Polymer technician
- Technical writer
- Toxicologist



Related Student Organizations

Undergraduate Chemical Society
Premedica
Natural Sciences College Council
Biochemistry/Biotechnology Club
Biochemical Engineering Club

Special Facilities

Undergraduate laboratory courses are conducted in small group settings, allowing hands-on experience with a wide variety of state-of-the-art instruments. The research experience prepares students to work confidently in virtually any industrial or academic laboratory setting and is recommended for all chemistry majors. The result is a practical chemical education that goes far beyond the required coursework and is an important reason why Colorado State University chemistry graduates are in high demand. The Department also houses a 2,500 ft² Central Instrument Facility available to chemistry personnel as well as to other University and area researchers. In addition, a new educational laboratory wing is currently under construction.