

Chemistry



Do you have an interest in a major that studies the composition, structure and properties of matter? The chemistry major at UW-Eau Claire encompasses the creation of new materials with useful and interesting properties such as drugs, plastics and industrial catalysts.

Majors

- **Chemistry** - Liberal Arts
- **Chemistry** - Teaching

Comprehensive majors (no minor required)

- **Chemistry, A.C.S.**
- **Chemistry, A.C.S. - Materials Science**
- **Chemistry, A.C.S. - Biochemistry**
- **Biochemistry/Molecular Biology**
- **Chemistry** - Research
- **Chemistry** - Business
- **Physical Science** - Teaching

Minors

- **Chemistry** - Liberal Arts
- **Chemistry** - Teaching

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Where you'll find our grads

- Graduate School - University of Minnesota, Cornell, Northwestern University
- Chemist, Glaxo-Smith-Kline, North Carolina
- Quality Control Chemist, Nestle USA, Eau Claire
- Pharmacy School, University of Wisconsin

Prepared for Success

As a chemistry major, you'll be prepared for many different roles in science and will often advance quickly in your career because of the major's broad, multidisciplinary nature and your ability to transfer knowledge between scientific disciplines. In addition, you will have access to

"The B.S. in chemistry at UWEC provided me with the critical thinking and lab skills necessary to work as a paid summer intern for Univar, a global chemical distributor. The challenging and high-quality chemistry courses prepared me to face whatever problems I might find in the chemical industry."

— Anna Waller | chemistry liberal arts '16

technology in the Materials Science Center, providing hands-on research very few other undergraduate programs offer. An array of career options and opportunities are available to you, including the technical areas of industrial and biotech research product development and environmental protection, forensic chemistry, teaching, chemical sales, and

The Power of **AND**

University of Wisconsin
Eau Claire

Chemistry (continued)

marketing.

Many of our students go on to pursue chemistry-related graduate degrees at places like Cornell, the University of Minnesota or Northwestern. Careers after college include corporate or non-profit research chemists, industry or government product developers, environmental chemists, teachers, dentist, or physicians.

To learn more about health careers, students can utilize the Health Careers Center where they will find advising resources, workshop information, program materials and course information to help them prepare for a biomedical graduate program or health professional program.

At UW-Eau Claire students receive a liberal arts education that prepare them with the technical expertise needed to be a successful scientist, while also shaping them into a well-rounded professional with skills in communication, problem-solving, and creative thinking.

Why UW-Eau Claire

Rankings / Reputation / Well-funded programs

UW-Eau Claire ranks in the top 3 percent of comprehensive undergraduate chemistry programs nationwide in the number of graduates going on to obtain chemistry PhD.s. Faculty typically generate about \$400,000 per year in grants (\$1.3 Million from 12-16), which pays for student researcher wages and instruments that students use in labs. In addition the department offers about \$11,000 in student scholarships each year.

Faculty Experts

All faculty in the department are PhD chemists, and five have received prestigious Dreyfus Teacher-Scholar Awards, more than any other public liberal arts or comprehensive

institution in the country.

Research Opportunities

Our outstanding chemistry faculty have a long tradition of productive collaborative research with students. Chemistry faculty have published more than 170 papers in peer-reviewed journals and have presented at regional, national and international meetings. Summer or academic year paid research positions are also available to help you further your experience in the field. The personal attention of faculty in the lab, classroom and field provides meaningful contacts for grad school and industry work.

Students also participate in weekly seminars featuring presentations by top researchers. In the fall, speakers from academic institutions discuss opportunities related to graduate school, while in the spring, UWEC hosts industry speakers from companies like Univar, Ecolab, Hydrite Chemical, 3M, Boston Scientific, Nestle USA, etc.

Innovative Facilities

The chemistry department has a comprehensive suite of instrumentation for the isolation and characterization of chemical substances. Most instruments are shared with all members of the department, with our primary users being undergraduate students, both in courses and in carrying out collaborative research outside of the classroom. Additionally, there are a number of specialized research instruments (including an X-ray diffractometer, optical cryostats and a jet-cooled expansion system) that serve the needs of specific faculty projects. In addition, several chemistry

faculty are major users of high-performance computing resources.

First-Year Suggested Curriculum

- Chemical Principles
- Introduction to Inorganic Chemistry
- Calculus and Analytic Geometry
- University writing requirement - depending on placement exam
- General electives

Course Work / Pre-Professional Courses

Chemistry courses are mostly sequential. Upper-division courses have chemistry, math and physics prerequisites that must be satisfied during the first two years if possible. Many students participate in undergraduate research collaboration with a faculty member, which can begin as early as the first semester on campus and last throughout the student's career.

Special Admission Guidelines

Chemical Principles (Chem 115) requires superior preparation in high school chemistry. Successful students have often taken AP chemistry and/ or earned strong grades in high school chemistry, physics, and mathematics. Students who do not have sufficient high school chemistry preparation or who place into a lower level math course should take General Chemistry (Chem 103 and Chem 104) first.