

Chemistry

Department of Chemistry, College of Arts and Sciences



Major Program

Chemistry is the science of the composition, structure, properties and reactions of matter, especially of atomic and molecular systems. It is the basis of the technology for large-scale production of chemicals and chemical materials vital to modern society. The study of chemistry helps people understand the physical world and its workings.

The department offers a major in chemistry, with students taking courses in organic chemistry, inorganic chemistry, analytical chemistry, physical chemistry and biochemistry. Students in their junior or senior years are encouraged to take research classes in their area of interest; the results are usually presented at scientific meetings. Many results are also published in peer-reviewed journals.

The WIU Department of Chemistry is certified by the American Chemical Society (ACS) in the areas of chemistry and biochemistry. The ACS, with over 120,000 members, is the largest scientific society in the country. In addition to certification of undergraduate programs, it publishes many primary chemical journals such as "Chemical Abstracts." Of the country's 2,000 undergraduate chemistry programs, fewer than 500 meet ACS certification requirements.

The department also offers minors in chemistry, forensic science, and forensic chemistry.

Faculty

Courses in the department are taught by faculty holding doctoral degrees from distinguished universities around the world, such as the State University of New York, Kansas State University, Texas A&M University, Texas Tech University, University of Illinois, University of Victoria (Canada), University of Missouri, University of California—Davis, and University of Loyola. All faculty are dedicated educators, skilled in fostering active student participation. They are also active researchers and have to their credit many research publications and presentations in the areas of their specialties.

Integrated Baccalaureate and Master's Degree in Chemistry

The Integrated Baccalaureate and Master of Science in Chemistry provides an opportunity for outstanding undergraduate Chemistry majors to complete both a Bachelor of Science and a Master of Science in Chemistry in a single five-year period.

Scholarships

The department offers several scholarships for chemistry majors. Four are named for distinguished faculty in the department—the Norbert Goeckner Scholarship is awarded annually to a chemistry major (undergraduate or graduate), with preference given to a Burmese student (if there is no eligible Burmese student, the award will be open to all chemistry majors); the Dr. and Mrs. R. L. Hardin Scholarship is awarded to a junior chemistry major; the F. H. Currens Award is given to an outstanding senior chemistry major; and the Ben Hughes Scholarship is awarded to a student who is a chemistry education major. The chemistry department also awards four Maurice Peterson scholarships and an Incoming Freshman Award to an entering freshman chemistry major, and they select a department scholar from outstanding seniors in the department. Additional scholarships are available through the WIU Women in Science program and the Research Inspiring Student Excellence (RISE) program. Detailed information on scholarships is available from the department, (309) 298-1538; Western's Scholarship office, (309) 298-2001; or

on the web at wiu.edu/chemistry or wiu.edu/Scholarship. Visit wiu.edu/Chemistry for full details on scholarships and awards.

Honors in Chemistry

To be eligible for the Centennial Honors College, entering freshmen must have an ACT composite score of at least 28 OR have a 26 or 27 composite ACT and be in the top 15 percent of their graduating class OR have an ACT composite score of at least 24 and be in the top 10 percent of their high school graduating class. A comparable SAT score is acceptable. Transfer and current WIU students who wish to join the Honors College (including the Quad Cities Honors Program) must have a 3.4 grade point average on a 4.0 scale based on 12 or more semester hours. Honors credit is given for honors coursework completed at other accredited institutions. To find out more, visit wiu.edu/Honors.

General honors seminars in the humanities, sciences and social sciences provide students with opportunities to explore key academic issues with distinguished faculty members. In the chemistry department, honors students take courses for honors credits and, as seniors, prepare an honors thesis under the direction of a department faculty member.

Student Activities

For students interested in chemistry, the department offers the Chemistry Club, an association affiliated with the American Chemical Society.

Special Opportunities

The department offers small classes with accessible faculty and personalized advising in Currens Hall. The department has many research laboratories, as well as a Physical Sciences Library that subscribes to more than 60 journals and online literature searching through the Chemical Abstract Service. Undergraduates have access to the department's state-of-the-art equipment and facilities, which are augmented by the existence of a graduate program. The modern instrumentation available for teaching and research includes a fluorometer, HPLC, FT-NMR, FT-IR, UV-Vis and GC-MS spectrometers; a capillary electrophoresis and a high-speed centrifuge.

Undergraduate Research Opportunities

There are many opportunities for students to work with faculty on research projects that involve inorganic chemistry, organic chemistry, biochemistry, medicinal chemistry, forensic chemistry, analytical chemistry and environmental chemistry. In addition, there are research opportunities for students in physical and food chemistry, as well as with many other projects. Undergraduate students involved in research get to travel to professional conferences, meet professionals from around the country and serve as co-authors on journal article publications.

University Libraries

University Libraries consists of the Leslie F. Malpass Library, which is the main branch, and four other branches: the Physical Sciences Library, the Music Library, the Curriculum Library and the Quad Cities Library. Students have access to a variety of resources in print and online. Research assistance is available in person at the Reference Desk and via instant messaging. Check out our website for hours, events and services available: wiu.edu/libraries.

After College

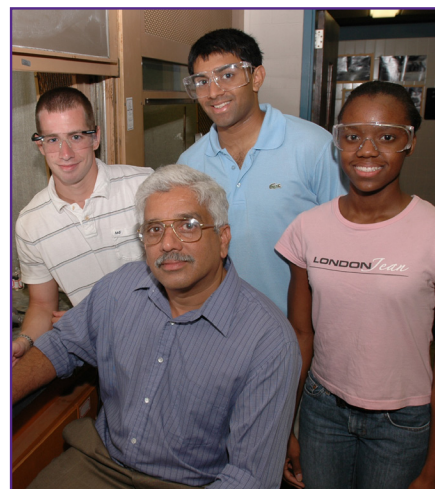
The modern world offers many and varied opportunities for professional chemists. Recent graduates have chosen careers in industry, education, medicine, crime laboratories, hospitals and environmental protection laboratories. Chemists have historically had unemployment rates well below the rates of the general population.

For More Information

The department welcomes visitors. Call the WIU Department of Chemistry at (309) 298-1538 or e-mail the advisor at JL-Sandrik@wiu.edu. Visit wiu.edu/chemistry.

For Your General Outlook

Required courses include General Chemistry I & II (8 SH); Chemical Calculations (2 SH); Chemistry Literature (1 SH); Organic Chemistry I & II (9 SH); Analytical Techniques (3 SH); Analytical Chemistry (4 SH); Physical Chemistry (8 SH); Inorganic Chemistry (4 SH); Safety Practices in Chemistry (1 SH); Senior Project Laboratory (3 SH); Chemistry Safety (1 SH); Calculus I, II & III (12 SH); Physics (8 to 10 SH); an approved minor (16 to 20 SH); and Computer Science (3 SH).



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