



WESTERN ILLINOIS UNIVERSITY

# Chemistry Education

Department of Chemistry, College of Arts & 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 that are vital to modern society. Well-trained high school chemistry instructors provide the important first step in the training needed to become a professional, as well as the education needed by the general public in our technological world.

Students considering chemistry as a career should take four years of mathematics, four years of English, and at least one year of chemistry in high school as preparation for college. If available, a year of physics is also recommended.

The Department of Chemistry is certified by the American Chemical Society 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.

## Faculty

Courses in the department are taught by faculty holding doctoral degrees from distinguished universities around the world such as the University of Mysore (India), Kansas State University, Texas A&M University, Texas Tech University, Lucknow University (India), University of Victoria (Canada), and University of Loyola. All 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.

## Scholarships

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/Scholarship](http://wiu.edu/Scholarship).

## 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% of their graduating class OR have an ACT composite score of at least 24 and be in the top 10% of their high school graduating class. Transfer students with at least 12 semester hours and up to 59 semester hours of undergraduate courses are admitted with a grade point average of at least 3.3 OR 3.4 for 60 semester hours or more. To find out more, visit [wiu.edu/Honors](http://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.

HIGHER VALUES IN HIGHER EDUCATION

## Special Opportunities

The department offers small classes with accessible faculty and personalized advising in Currens Hall. There are three electronic classrooms and numerous teaching/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 FPLC, HPLC, FT-NMR, FT-IR, UV-Vis, and GC-MS Spectrometer; capillary electrophoresis; and a high-speed centrifuge.

## After College

Currently, statistics indicate that all regions of the United States show some shortage of chemistry teachers. This ranges from extreme need for teachers in Hawaii and on the west coast to a close balance between need and available teachers in the Rocky Mountain states. Here in the Midwest, a definite shortage of qualified chemistry teachers continues to raise concerns among education professionals.

## For More Information

The department welcomes visitors. Call the Department of Chemistry at (309) 298-1538 or e-mail the adviser: LM-Barden@wiu.edu. You can also learn more about the department by visiting [wiu.edu/chemistry](http://wiu.edu/chemistry).

## For Your General Outlook

Required courses include Inorganic Chemistry I, II & III (12 SH); Organic Chemistry I & II (9 SH); Analytical Techniques (3 SH); Analytical Chemistry (5 SH); Physical Chemistry (4 SH); any approved minor (20 SH); Science in Context (3 SH); Physics (11 SH); Biology (8 SH); Geology (4 SH); Senior Project Laboratory (3 SH); Education (3 SH); Education and Interdisciplinary Studies (13 SH); Calculus I & II (9 SH); Special Education and/or Psychology (4 SH); and Student Teaching (12 SH).

## Leslie F. Malpass Library

The library and its five branches house more than one million cataloged volumes, 3,300 current journal subscriptions, and 25 foreign and domestic newspapers. In addition, the library provides computer access to resources worldwide, including 800 other Illinois libraries with more than 22 million volumes. When necessary, the interlibrary loan program can have materials in students' hands within a day or two.

## Higher Values in Higher Education

Located in Macomb (population 20,000), with a campus in the Quad Cities (Moline, IL), Western Illinois University offers a caring and supportive learning environment to more than 13,000 students in west-central Illinois. Western students have all the advantages of a large public university—strong faculty, state-of-the-art technology and facilities, and a wide range of academic and extracurricular opportunities—in an atmosphere free from distractions. Western Illinois University is a member of the NCAA and competes at the Division I level, sponsoring 20 intercollegiate sports in a broad-based athletics department. Western's presence in the Quad Cities spans more than 40 years, and that campus offers undergraduate and graduate programs to more than 1,500 students. The core values that are at the heart of the University are academic excellence, educational opportunity, personal growth, and social responsibility.

Western's GradTrac and Cost programs guarantee that students can achieve their degrees within four years while paying a fixed rate for tuition, fees, room, and board.

Western Illinois University is an Affirmative Action and Equal Opportunity employer with a strong commitment to diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including, but not limited to, minorities, women, and individuals with disabilities. WIU has a non-discrimination policy that includes sex, race, color, sexual orientation, gender identity and gender expression, religion, age, marital status, national origin, disability, and veteran status.



[wiu.edu/chemistry](http://wiu.edu/chemistry)

### Department of Chemistry

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