



WESTERN ILLINOIS UNIVERSITY

Forensic Chemistry

Department of Chemistry, College of Arts & Sciences

Major Program

Forensic chemistry deals with the application of chemistry to criminal investigation. In criminal cases, forensic scientists are often involved in the search for and examination of physical evidence that may become useful in establishing or excluding an association between someone suspected of committing a crime and the actual scene of the crime or victim. Such evidence might commonly include blood and other body fluids, hair, textile fibers, building materials (such as paint or glass), footwear, tools, tire marks, and flammable substances used to start fires. Other forensic scientists might analyze suspected drugs of abuse, specimens from people thought to have taken these drugs, specimens from individuals thought to have been driving under the influence of alcohol, or specimens from individuals thought to have been poisoned. Yet others specialize in firearms, explosives, or documents with questionable authenticity. Forensic chemists are also involved in the investigation of crimes against society such as food adulteration, environmental pollution, use and distribution of unsafe chemicals, and dangerous working conditions. This major is recommended for individuals who wish to pursue a career in the laboratory analysis of forensic evidence, or who wish to pursue graduate study in forensic science. Due to the nature of forensic investigations, the forensic chemist requires a strong background in chemical analysis and must be able to effectively communicate the results of laboratory analyses in reports and in the courtroom. The curriculum is designed so that the major provides a strong theoretical and experimental background in chemistry as well as a strong focus on written and oral communication skills.

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

The department offers nine scholarships for Chemistry majors. Four are named for the Maurice Peterson Foundation, and 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 Dr. Ben Hughes Scholarship is awarded annually to a Chemistry education major. The Department of Chemistry also awards an Incoming Freshman Award to an entering freshman Chemistry major and selects a department scholar from outstanding seniors in the department. 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 or wiu.edu/Chemistry.

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.

HIGHER VALUES IN HIGHER EDUCATION

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. 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 spectrometers; capillary electrophoresis; and a high-speed centrifuge.

After College

The Forensic Chemistry major will prepare students to work in modern crime laboratories at the local, regional, state, or federal levels. These graduates can also work for other law enforcement agencies such as the Drug Enforcement Administration, Food and Drug Administration, Environmental Protection Agency, and Occupational Safety and Health Administration. The program also prepares students to work for private industries in their analytical, environmental, chemical synthesis, or toxicology laboratories. In addition, the program provides training to students to pursue graduate work in chemistry, forensic chemistry, forensic sciences, environmental sciences, industrial hygiene, medical chemistry, or toxicology.

For More Information

The department welcomes visitors. Call the Department of Chemistry at (309) 298-1538 or e-mail the adviser: JL-Sandrik@wiu.edu. You can also learn more about the department by visiting 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); Biochemistry (4 SH); Chemical Literature (1 SH); Applications of Forensic Chemistry (3 SH); Forensic Toxicology and DNA Analysis (3 SH); Biological Diversity (4 SH); Biological Principles (4 SH); Calculus I & II (9 SH); Physics (8-10 SH); Law Enforcement (6 SH); and Computer Science (3 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.

Campus Visits

The Admissions Reception Center (Sherman Hall 115) is open most weekdays from 8:00 AM to 4:30 PM when the University is in session. Group information sessions are available at 10:00 AM and 1:00 PM, and campus tours are conducted at 11:00 AM and 2:00 PM daily. Individual appointments with an admissions counselor, advisers/faculty, or a financial aid adviser may be arranged during the week. The Admissions Reception Center is open from 9:30 AM to 1:00 PM most Saturdays when the University is in session. A group information session is available at 10:00 AM, and a campus tour is conducted at 11:00 AM. An individual appointment with an admissions counselor may be arranged. You may schedule your visit or tour online at admissions.wiu.edu by selecting "Visit Campus." You may also schedule a visit, tour, or individual appointment by calling toll free (877) PICKWIU [742-5948] or (309) 298-3157, or by e-mailing admissions@wiu.edu.



wiu.edu/chemistry

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Currens Hall 214 • Western Illinois University
1 University Circle • Macomb, IL 61455-1390
Phone: (309) 298-1538

