

ILLINOIS WESLEYAN UNIVERSITY

CHEMISTRY

Chemists explore how matter behaves at the molecular level and use that information to ask and answer important questions about the environment, human health, the composition of the world around us, and the origins of the stars. Chemists use their growing understanding of how molecules function to develop new medicines, renewable fuels, and advanced materials.

Why Chemistry at Illinois Wesleyan?

- Faculty work closely with students inside and outside of class, in the laboratory, and in collaborative research.
- Students gain in-depth understanding in each of the major areas of chemistry (analytical, inorganic, organic, physical, and biochemistry) and are encouraged to relate their study of chemistry to other disciplines including biology, physics, environmental studies, education, and business.
- By emphasizing breadth across the disciplines as well as depth in the major, an Illinois Wesleyan education fosters cultural awareness, interdisciplinary thinking, creativity, leadership, and exceptional communication skills.
- The Center for Natural Sciences features superior facilities, including a 400MHz NMR spectrometer, a scanning electron microscope, and a broad assortment of optical spectrometers and chromatographs.
- Coursework leads to certification by the American Chemical Society.
- The curriculum provides thorough preparation for employment as a chemist, admission to graduate programs, and admission to schools of medicine, dentistry, pharmacy, engineering, veterinary medicine, optometry, and law.

Learning from a Quality Faculty

The chemistry faculty are all professionally active and engaged in research with Illinois Wesleyan students.

- **Melinda Baur**, *Assistant Professor of Chemistry*
Ph.D. — University of North Carolina
Specializes in biochemistry
- **Brian Brennan**, *Associate Professor of Chemistry*
Ph.D. — University of Michigan
Specializes in bio-organic chemistry



A Sampling of Courses Offered in Chemistry:

Instrumental Analysis
Biochemistry
Organic Chemistry
Inorganic Chemistry
Special Topics in Chemistry
Thermodynamics
Kinetics
Quantum Mechanics
Advanced Organic Chemistry
Advanced Inorganic Synthesis and Analysis
Internship in Chemistry
Quantitative Analysis

Recent May Term Courses Related to Chemistry:

Biochemistry of Food: Hawaii
Chemistry Research/
Independent Study
Biochemistry of Fermentation:
From Beverages to Biofuels
Medical Externship



“The size of the Illinois Wesleyan Chemistry Department is one of its big advantages. Because we are relatively small, our students have the

- **Ram Mohan**, *Wendell and Lorretta Hess Professor of Chemistry*
Ph.D. — University of Maryland
Specializes in organic chemistry
- **Manori Perera**, *Assistant Professor of Chemistry*
Ph.D. — University of Massachusetts Amherst
Specializes in analytical chemistry and astrochemistry
- **Tim Rettich**, *Professor of Chemistry*
Ph.D. — Case Western Reserve University
Specializes in physical chemistry
- **Rebecca Roesner**, *Chair and Professor of Chemistry*
Ph.D. — University of Kansas
Specializes in synthetic inorganic chemistry.

Putting Learning into Practice

- Students gain frequent, hands-on experience with research-grade instrumentation including a JEOL 400 MHz nuclear magnetic resonance spectrometer.
- Students are encouraged to pursue collaborative research with faculty members during the academic year. Students routinely present their research at the annual John Wesley Powell Research Conference and at regional and national meetings of the American Chemical Society.
- Chemistry majors frequently participate in paid summer research experiences at IWU, through the IWU Freeman Asia Internship Program, at large university research centers such as Boston University and the University of Illinois, and in government laboratories. Other students pursue paid summer internships at private corporations such as Pfizer or AbbVie or spend the summer exploring careers in medicine, pharmacy, or forensic science.
- IWU chemistry majors study abroad in locations such as Australia, New Zealand, the UK and Denmark. IWU chemistry majors have participated in summer research in Argentina, China, Germany, and the Philippines.
- IWU chemistry alumni pursue a wide variety of rewarding careers including research, medicine, teaching (university and high school), law, pharmacy, forensic science, engineering, food science, and physical therapy.
- Recent Illinois Wesleyan chemistry graduates have pursued graduate study at major research universities, including the University of Michigan, University of Wisconsin – Madison, Johns Hopkins, University of Illinois, Boston College, California Institute of Technology, and The Scripps Research Institute.

opportunity to work individually with faculty members, collaborating with them on projects in such areas as green chemical synthesis, treatments for sickle cell anemia, environmental photochemistry and supramolecular chemistry. Because our students participate in research as undergraduates, they have a distinct edge when seeking admission to graduate schools or positions with industrial research firms.”

Dr. Becky Roesner

Professor of Chemistry and
Department Chair

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