The Illinois Tech Experience

Illinois Tech offers the advantages of a small, private college combined with a major research university.

The Illinois Tech education is distinguished by the integration of rigorous academic activities, professional perspectives, and applied experiences. It is an environment which is personalized, research-based, and internationally diverse.

At Illinois Tech, you will be located in the heart of one of the world’s greatest cities, Chicago.

To learn more and apply:

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Chemistry Graduate Program at Illinois Tech

IIT College of Science
ILLINOIS INSTITUTE OF TECHNOLOGY
The Department of Chemistry at Illinois Institute of Technology (IIT)

With a legacy dating back to the 1890s, Illinois Tech chemistry offers small classes and a focused, intense learning experience that will help you advance to your next step, whether in academia or industry. By exposure to advanced knowledge in their discipline, our students learn to think creatively and critically, and to communicate effectively what they have learned. Illinois Tech chemistry has close collaborations with other science and engineering departments and institutions, including Fermi National Accelerator Laboratory and Argonne National Laboratory, as well as industry.

Graduate Programs

We offer graduate programs leading to both the M.S. and Ph.D. degrees in chemistry. The programs span the traditional areas of research in physical, polymer, organic, inorganic, analytical, computational, and biological chemistry, but incorporates cross-disciplinary research projects to solve real-world problems in the areas of catalysis, pharmaceuticals, therapeutics, materials, and sustainable energy. Inspired by the need to address contemporary problems, the research work in the chemistry department converges into the following two areas:

Materials Chemistry: A number of Illinois Tech Chemistry faculty members are engaged in materials research with an emphasis on materials for energy applications, covering four critical areas—materials synthesis, characterization, evaluation, and computation and modeling.

Biological Chemistry: Exciting advances in cancer treatment are being made by chemistry faculty at Illinois Tech through interdisciplinary research projects aimed at developing safe, effective, and targeted drugs for cancer and neurodegenerative diseases and stem cell research.

Degree Programs

Doctor of Philosophy in Chemistry (Ph.D.). The doctoral program is designed to inspire students to make original and significant contributions to the field of chemistry. The research degree culminates in a dissertation. Publication of portions of the work is expected. The research for the Ph.D. dissertation is carried out under the direct supervision of a faculty member, who serves as mentor and academic advisor for the student.

Master of Science in Chemistry (M.S.). The Master of Science in Chemistry culminates in an orally defended thesis based on the candidate’s original research, carried out under the supervision of a faculty advisor. Students complete required coursework and pass a written qualifying examination in their area of specialization.

Master of Chemistry. In addition to the Master of Science degree, our graduate program offers a Master of Chemistry degree which parallels the Master of Science degree, but does not require a thesis.

Places Our Graduate Students Have Gone

After graduation, our graduate students have moved on to work at corporations such as Abbott, Amgen, Baxter, GE, IBM, Intel, and United Space Alliance; others have gone to Argonne National Laboratory and into academia at top universities.

Chemistry Research Facilities Include:

- New Chemistry Computer Cluster for quantum chemistry calculations and molecular visualization
- Fourier transform infrared spectrometer
- Atomic force microscope
- Gas chromatography-mass spectrometer
- Thermogravimetric analyzer
- Ultraviolet-visible spectrometer
- High-performance liquid chromatography
- Nuclear magnetic resonance spectrometer
- Raman spectrometer
- Atomic absorption spectrometer
- Fluorescence spectrometer
- Nuclear magnetic resonance spectrometer
- Gas-chromatography-mass spectrometer
- Thermogravimetric analyzer

The Department of Chemistry is home to a state-of-the-art computational facility that supports outstanding computational chemistry research and teaching activities at Illinois Tech. The department is also home to the International Center for Sensor Science and Engineering (http://cos.iit.edu/icsse). ICSEE brings together researchers from academia, industry and research labs to provide an interdisciplinary environment for broader areas of sensor research.

Financial Support

Teaching and research assistantships and research fellowships are available to qualified students. Some well qualified students are offered graduate scholarships from the College of Science in the first year. Exceptionally well qualified applicants are eligible for additional special scholarships, fellowships or research assistantships. Illinois Tech Chemistry offers the prestigious Kilpatrick Fellowship to top chemistry graduate students, providing them with full tuition and a stipend.

Admission Requirements

All degree applicants must hold a bachelor’s degree from an accredited educational institution, with a minimum GPA of 3.0 on a 4.0 scale. Graduate Record Examination (GRE) is required for all Ph.D., M.S., and Master of Chemistry applicants. Applicants with a GPA less than 3.0 may be granted provisional admission.

- Minimum GRE scores:
  - Ph.D.: 310 (quantitative + verbal) and 3.0 (analytical writing);
  - M.S.: 300/2.5

- Minimum TOEFL score:
  - 5.5, for international applicants.

- Minimum IELTS score:
  - 80, or Minimum IELTS score: 5.5, for international applicants.

Visit the Graduate Admission website at admissions.iit.edu/graduate