

ILLINOIS TECH

Graduate Programs



Armour College of Engineering

Educating a New Generation of Engineers



DEGREE PROGRAMS

Master's Degrees

- Advanced Manufacturing
- Architectural Engineering
- Biological Engineering
- Biomedical Engineering
- Biomedical Imaging and Signals
- Chemical Engineering
- Chemical Engineering with E3 Specialization
- Computational Engineering
- Construction Engineering and Management
- Cybersecurity Engineering
- Electrical and Computer Engineering
- Electricity Markets
- Energy Systems
- Engineering Management
- Engineering in Advanced Manufacturing
- Engineering in Energy Systems
- Engineering in Manufacturing
- Engineering in Materials Science and Engineering
- Engineering in Mechanical and Aerospace Engineering
- Engineering in Urban Systems
- Environmental Engineering
- Geotechnical Engineering
- Network Engineering
- Pharmaceutical Engineering
- Power Engineering
- Public Works (Infrastructure Engineering and Management)
- Structural Engineering
- Telecommunications and Software Engineering
- Urban Systems Engineering
- Transportation Engineering
- VLSI and Microelectronics

Master of Science Degrees

- Architectural Engineering
- Biomedical Engineering
- Chemical Engineering
- Chemical Engineering with E3 Specialization
- Civil Engineering
- Computer Engineering
- Computer Engineering and Electrical Engineering
- Master of Science Computer Science/ Master of Chemical Engineering (Dual Degree)
- Electrical Engineering
- Environmental Engineering
- Manufacturing Engineering
- Materials Science and Engineering
- Mechanical and Aerospace Engineering

Doctoral Degrees

- Biomedical Engineering
- Chemical and Biological Engineering
- Chemical Engineering with E3 Specialization
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Environmental Engineering
- Materials Science and Engineering
- Mechanical and Aerospace Engineering

Graduate Certificates

- Advanced Electronics
- Air Resources
- Applied Electromagnetics
- Architectural Engineering
- Biological Engineering
- Communication Systems
- Computer Engineering
- Computer Integrated Design and Manufacturing
- Construction Management
- Control Systems
- Current Energy Issues
- Earthquake and Wind Engineering Design
- Electricity Markets
- Fire Protection and Safety Engineering
- Geoenvironmental Engineering
- Hazardous Waste Engineering
- Indoor Air Quality
- Infrastructure Engineering and Management
- Particle Processing
- Polymer Science and Engineering
- Power Electronics
- Power Engineering
- Process Operations Management
- Product Quality and Reliability Assurance
- Signal Processing
- Transportation Systems Planning
- Waste and Wastewater Treatment
- Wireless Communications Engineering

► For information on our co-terminal degrees, please visit engineering.iit.edu/programs/co-terminal-degrees.

Looking at the world through the lens of innovation

Armour College of Engineering is accredited by the Engineering Accreditation Commission of ABET. For more information on accreditation, visit www.abet.org.

ILLINOIS INSTITUTE OF TECHNOLOGY



 ILLINOIS INSTITUTE OF TECHNOLOGY
Armour College of Engineering

engineering.iit.edu

GRADUATE ADMISSION AT ILLINOIS TECH

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A TRADITION OF EXCELLENCE

Armour College of Engineering has been preparing students to become engineers since 1890—first as Armour Institute of Technology and today as part of Illinois Institute of Technology.

A lot has changed in the past 127 years, but some things remain the same. Armour College is committed to preparing students to lead in a rapidly changing, technology-driven, global society—and we are proud to say that our students continue to be among the most sought-after engineering professionals at companies across the United States and around the world.

Armour College graduates have several distinct advantages over other engineering students. They become part of an alumni community that includes Martin Cooper (EE '50, M.S. '57), the inventor of the cell phone. They use emerging technologies in their courses and take classes in the newly renovated **John T. Rettaliata Engineering Center**.

Our graduate engineering education is aligned with global priorities. Our full-time faculty of nearly 100 scholars, researchers, and practitioners are engaged in fundamental and applied research that has global impact.

Armour's distinctive education is also reflected in its focus on the entrepreneurial and ethical aspects of the engineering profession. When you graduate with an engineering degree from Illinois Tech, you will be well prepared to innovate, manage change—and lead.



Research priorities include advanced materials; autonomous systems; bioengineering; food science/engineering; embedded systems; energy and sustainability; manufacturing; multimedia big data analytics; network and communications; smart grid; and urban systems (transportation sustainability, environmental). Armour College has externally sponsored research awards that exceed \$55 million over the past four years.

- The **Department of Biomedical Engineering** is nationally recognized for research in medical imaging, cell and tissue engineering, and neural engineering, with five members of the American Institute of Medical and Biological Engineering as faculty.
- The **Department of Electrical and Computer Engineering** counts Martin Cooper (EE '50, M.S. '57), the leader of the team that developed the first cell phone, among its distinguished alumni.
- **Thirty-eight Armour alumni** and three members of the faculty are members of the National Academy of Engineering.
- Our **Department of Chemical and Biological Engineering**—established in 1901—was one of the first chemical engineering programs in the country.



ENGINEERING RESEARCH

RESEARCH INSTITUTES

Pritzker Institute of Biomedical Science and Engineering

The Pritzker Institute enhances biomedical science and engineering research activities at Illinois Tech through partnerships with prestigious laboratories, including those with Argonne National Laboratory and the University of Chicago. The centers within Pritzker Institute include the Medical Imaging Research Center, the Center for Integrative Neuroscience and Neuroengineering Research, the Engineering Center for Diabetes Research and Education, the Center for Molecular Study of Condensed Soft Matter, and the Biophysics Collaborative Access Team.

Wanger Institute for Sustainable Energy Research (WISER)

WISER's goal is to improve energy efficiency, enhance power reliability and security, minimize pollution, and continue the decarbonization of the global energy system in the most cost-efficient way possible. Illinois Tech researchers believe that the endpoint of this evolution will be electrification of most stationary energy uses with such high-tech renewables as photovoltaic, solar-thermal, and wind energy, and the use of hydrogen as the dominant transportation fuel in fuel-cell-powered electric vehicles. Housed within WISER, the Robert W. Galvin Center for Electricity Innovation pursues groundbreaking work in the generation, transmission, distribution, management, and consumption of electricity.

Department of Biomedical Engineering

- Neural engineering
- Medical imaging
- Cell and tissue engineering

Department of Chemical and Biological Engineering

- Biological engineering
- Energy and sustainability
- Systems engineering
- Advanced materials

Department of Civil, Architectural, and Environmental Engineering

- Architectural engineering
- Construction engineering and management
- Engineering graphics
- Environmental engineering
- Public works
- Structural engineering
- Transportation engineering

Department of Electrical and Computer Engineering

- Communication and signal processing
- Computers and microelectronics
- Power and control

Department of Mechanical, Materials, and Aerospace Engineering

- Design and manufacturing
- Dynamics and control
- Fluid dynamics
- Materials science and engineering
- Solids and structures
- Thermal sciences



ILLINOIS TECH MICROGRID

Our entire campus comprises the nation's first functional microgrid—and reflects Illinois Tech's pioneering work in electricity delivery and infrastructure. Learn more about the microgrid and research endeavors at Illinois Tech's Wanger Institute for Sustainable Energy Research at web.illit.edu/wiser.

ILLINOIS TECH

Discover. Create. Solve.