# **ACADEMIC PROGRAMS**

# **Graduate Degree Programs and General Requirements**

The university's Armour College of Engineering, Chicago-Kent College of Law, College of Architecture, College of Science, Institute of Design, Lewis College of Human Sciences, School of Applied Technology, and Stuart School of Business award graduate degrees. In many fields, students in master's programs may choose either a thesis track or non-thesis track program. These academic units also work together to offer a wide variety of joint- and dual-degree programs.

# **Doctoral Degrees**

- · Applied Mathematics
- · Architecture
- Biology
- · Biomedical Engineering
- · Chemical Engineering
- · Chemistry
- Civil Engineering
- · Collegiate Mathematics Education
- Computer Engineering
- · Computer Science
- · Design
- · Electrical Engineering
- · Environmental Engineering
- · Food Science and Nutrition
- · Management Science
- · Materials Science and Engineering
- · Mathematics Education
- · Mechanical and Aerospace Engineering
- Molecular Biochemistry and Biophysics
- Physics
- Psychology
- · Science Education
- · Technology and Humanities

# **Law Degrees**

- · Doctor of the Science of Law (J.S.D.)
- · Juris Doctor (J.D.)
- Master of Laws (LL.M.)
- · J.D./LL.M. in Family Law
- · J.D./M.B.A. (joint degree)
- · J.D./M.S. in Sustainability Management (joint degree)
- J.D./LL.M. in Taxation (joint degree)
- J.D./M.S. in Finance (joint degree)
- · J.D./LL.M. in Financial Services Law (joint degree)
- · J.D./M.P.A. (joint degree)
- J.D./Master of Public Health (joint degree in cooperation with University of Illinois at Chicago)

# **Master of Science Degrees**

- · Applied Mathematics
- · Applied Physics
- · Architectural Engineering
- Architecture
- Biology
- · Biology for the Health Professions
- · Biomedical Engineering
- · Chemical Engineering
- · Chemistry
- · Civil Engineering
- · Computational Decision Sciences and Operations Research
- · Computer Engineering
- Computer Engineering/Electrical Engineering (dual degree)
- · Computer Science
- Computer Science/Master of Chemical Engineering (dual degree)
- · Electrical Engineering
- · Environmental Engineering
- Finance
- · Food Process Engineering
- · Food Safety and Technology
- Management Science
- · Manufacturing Engineering
- · Marketing Analytics
- · Materials Science and Engineering
- · Mathematics Education
- Mechanical and Aerospace Engineering
- · Molecular Biochemistry and Biophysics
- Personnel and Human Resources Development
- · Physics
- Psychology
- · Rehabilitation and Mental Health Counseling
- · Science Education
- · Sustainability Management
- · Technical Communication and Information Architecture
- · Technology and Humanities

# **Professional Master's Degrees**

These programs are specifically designed with the needs of professionals in mind. Most are course-only and do not require a thesis. In addition, the GRE requirement is waived for applicants to professional master's degree programs who hold a bachelor's degree from an accredited U.S. institution with a cumulative GPA of at least 3.0/4.0.

- · Analytical Chemistry
- · Applied Mathematics
- · Architecture
- · Architecture/Landscape Architecture (dual degree)
- · Architectural Engineering (M.E.)
- · Biological Engineering
- Biology
- · Biomedical Engineering (M.E.)
- · Biomedical Imaging and Signals
- · Business Administration (M.B.A.)
- · Business Administration/Design (dual degree)
- Business Administration/M.S. in Sustainability Management (dual degree)
- Business Administration/M.S. in Finance (dual degree)
- Business Administration/M.S. in Marketing Analytics (dual degree)
- · Business Administration/Public Administration (dual degree)
- · Chemical Engineering
- Chemical Engineering/M.S. in Computer Science (dual degree)
- · Computer Science
- · Construction Engineering and Management (M.E.)
- · Cyber Forensics and Security
- · Data Science
- Design
- · Design Methods
- · Electrical and Computer Engineering
- · Electricity Markets

- · Environmental Engineering (M.E.)
- · Food Process Engineering
- · Food Safety and Technology
- · Geotechnical Engineering (M.E.)
- · Health Physics
- · Industrial Technology and Operations
- · Information Technology and Management
- · Intellectual Property Management and Markets
- · Landscape Architecture
- · Manufacturing Engineering (M.E.)
- · Materials Chemistry
- · Materials Science and Engineering (M.E.)
- · Mathematical Finance
- · Mathematics Education
- · Mechanical and Aerospace Engineering (M.E.)
- · Network Engineering
- Power Engineering
- · Public Administration (M.P.A.)
- · Public Works (M.P.W.)
- · Science Education
- Structural Engineering (M.E.)
- · Technological Entrepreneurship
- · Telecommunications and Software Engineering
- Transportation Engineering (M.E.)
- · VLSI and Microelectronics

## **Co-Terminal Degree Programs**

Co-terminal degrees allow outstanding Illinois Institute of Technology undergraduate students to simultaneously complete both an undergraduate and graduate degree (bachelor's degree and master's degree).

Co-terminal degrees provide an opportunity for students to gain greater knowledge in specialized areas while completing a smaller number of credit hours with increased scheduling flexibility than the completion of two degrees separately. Because most co-terminal degrees allow students to share course credit (a maximum of 9 credit hours), students may complete both a bachelor's and master's degree in as few as five years. All degree requirements must be completed within six years of undergraduate matriculation, or the student will be dismissed from the co-terminal degree program.

Co-terminal students maintain their undergraduate student status while completing graduate coursework, and can maintain financial aid eligibility when applicable.

The following are co-terminal degrees approved as of August 2016.

#### **Applied Mathematics**

- Bachelor of Science in Applied Mathematics/Master of Science in Applied Mathematics
- Bachelor of Science in Applied Mathematics/Master of Data Science
- Bachelor of Science in Computer Science/Master of Science in Applied Mathematics

#### **Architecture**

Bachelor of Architecture/Master of Science in Architecture

#### **Biology**

- Bachelor of Science in Biochemistry/Master of Biology with Biochemistry specialization
- Bachelor of Science in Biochemistry/Master of Science in Biology with Biochemistry specialization
- · Bachelor of Science in Biology/Master of Biology
- Bachelor of Science in Biology/Master of Science in Biology
- Bachelor of Science in Chemistry/Master of Science in Biology for the Health Professions

#### **Business**

- Bachelor of Science in Business Administration/Master of Public Administration
- Bachelor of Science in Business Administration/Master of Science in Finance
- Bachelor of Science in Business Administration/Master of Science in Marketing Analytics
- Bachelor of Science in Engineering Management/Master of Public Administration
- Bachelor of Science in Social and Economic Development Policy/Master of Public Administration

## **Chemical and Biological Engineering**

- Bachelor of Science in Biomedical Engineering/Master of Chemical Engineering
- Bachelor of Science in Chemical Engineering/Master of Biological Engineering
- Bachelor of Science in Chemical Engineering/Master of Chemical Engineering
- Bachelor of Science in Chemistry/Master of Chemical Engineering

#### Chemistry

Bachelor of Science in Chemistry/Master of Chemistry

## Civil, Architectural, and Environmental Engineering

- Bachelor of Architecture/Master of Engineering in Construction Engineering and Management
- Bachelor of Science in Architectural Engineering/Master of Engineering in Architectural Engineering
- Bachelor of Science in Architectural Engineering/Master of Engineering in Construction Engineering and Management
- Bachelor of Science in Architectural Engineering/Master of Engineering in Structural Engineering
- Bachelor of Science in Chemical Engineering/Master of Engineering in Environmental Engineering
- Bachelor of Science in Civil Engineering/Master of Engineering in Construction Engineering and Management
- Bachelor of Science in Civil Engineering/Master of Engineering in Environmental Engineering
- Bachelor of Science in Civil Engineering/Master of Engineering in Geotechnical Engineering
- Bachelor of Science in Civil Engineering/Master of Engineering in Structural Engineering
- Bachelor of Science in Civil Engineering/Master of Engineering in Transportation Engineering

## **Computer Science**

- Bachelor of Science in Applied Mathematics/Master of Computer Science
- Bachelor of Science in Applied Mathematics/Master of Science in Computer Science
- · Bachelor of Science in Biology/Master of Computer Science
- Bachelor of Science in Biology/Master of Science in Computer Science
- Bachelor of Science in Computer Engineering/Master of Computer Science
- Bachelor of Science in Computer Engineering/Master of Science in Computer Science
- Bachelor of Science in Computer Science/Master of Computer Science
- Bachelor of Science in Computer Science/Master of Science in Computer Science
- Bachelor of Science in Computer Science/Master of Data Science
- · Bachelor of Science in Physics/Master of Computer Science
- Bachelor of Science in Physics/Master of Science in Computer Science

## **Electrical and Computer Engineering**

- Bachelor of Science in Biomedical Engineering/Master of Biomedical Imaging and Signals
- Bachelor of Science in Computer Engineering/Master of Electrical and Computer Engineering
- Bachelor of Science in Computer Engineering/Master of Science in Computer Engineering
- Bachelor of Science in Computer Engineering/Master of Science in Electrical Engineering
- Bachelor of Science in Electrical Engineering/Master of Electrical and Computer Engineering
- Bachelor of Science in Electrical Engineering/Master of Science in Computer Engineering
- Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering

#### **Food Science and Nutrition**

- Bachelor of Science in Biochemistry/Master of Food Safety and Technology
- Bachelor of Science in Biology/Master of Food Safety and Technology
- Bachelor of Science in Chemical Engineering/Master of Food Process Engineering
- Bachelor of Science in Chemistry/Master of Food Safety and Technology

## **Industrial Technology and Management**

 Bachelor of Industrial Technology and Management/Master of Industrial Technology and Operations

## **Information Technology and Management**

- Bachelor of Information Technology and Management/Master of Cyber Forensics and Security
- Bachelor of Information Technology and Management/Master of Information Technology and Management

## **Intellectual Property Management and Markets**

 Bachelor of Science in Computer Science/Master of Intellectual Property Management and Markets

## Mechanical, Materials, and Aerospace Engineering

- Bachelor of Science in Aerospace Engineering/Master of Engineering in Materials Science and Engineering
- Bachelor of Science in Aerospace Engineering/Master of Engineering in Mechanical and Aerospace Engineering
- Bachelor of Science in Mechanical Engineering/Master of Engineering in Materials Science and Engineering
- Bachelor of Science in Mechanical Engineering/Master of Engineering in Mechanical and Aerospace Engineering

#### **Physics**

- · Bachelor of Science in Physics/Master of Health Physics
- · Bachelor of Science in Physics/Master of Science in Physics

# **Graduate Certificate Programs**

Designed to provide knowledge in a specialized area within an academic discipline, these programs typically consist of 9-12 credit hours of coursework that might otherwise be applicable to a master's degree. Students who successfully complete graduate certificate programs and who subsequently apply for admission and are admitted to a master's degree program at the university may apply all approved coursework taken in the certificate program and passed with a grade of "B" or better toward the master's degree. Admission to a certificate program does not guarantee future admission to a degree program.

With a few exceptions, Illinois Institute of Technology's graduate certificate programs are eligible for the Gainful Employment Programs. For a complete list of eligible certificates, see iit.edu/grad\_adm/.

#### **Chemical and Biological Engineering**

- · Biological Engineering
- · Current Energy Issues
- · Particle Processing
- · Pharmaceutical Engineering
- · Polymer Science and Engineering
- · Process Operations Management

### Chemistry

- · Analytical Method Development
- · Analytical Spectroscopy
- · Characterization of Inorganic and Organic Materials
- · Chromatography
- · Regulatory Science
- · Synthesis and Characterization of Inorganic Materials
- · Synthesis and Characterization of Organic Materials

#### Civil, Architectural, and Environmental Engineering

- · Air Resources
- · Architectural Engineering
- · Construction Management
- Earthquake and Wind Engineering Design
- · Hazardous Waste Management
- · Indoor Air Quality
- · Infrastructure Engineering and Management
- · Transportation Systems Planning
- · Water and Wastewater Treatment

## **Computer Science**

- · Computational Intelligence
- · Cyber-Physical Systems
- Data Analytics
- · Database Systems
- · Distributed and Cloud Computing
- · Information Security and Assurance
- · Networking and Telecommunications
- Software Engineering

## **Electrical and Computer Engineering**

- · Advanced Electronics
- Applied Electromagnetics
- · Communication Systems
- · Computer Engineering
- · Control Systems
- Electricity Markets
- Power Electronics
- · Power Engineering

- Signal Processing
- · Wireless Communications Engineering

#### **Environmental Management**

- · Compliance and Pollution Prevention
- · Sustainable Enterprise

#### **Food Science and Nutrition**

- · Food Process Engineering
- · Food Processing Specialist
- · Food Safety and Industrial Management
- · Food Safety and Technology

#### **Humanities**

- · Instructional Design
- · Technical Communication

#### **Information Technology and Management**

- Advanced Software Development
- Cyber Security Management
- · Cyber Security Technologies
- · Data Center Operations and Management
- · Data Management and Analytics
- · Digital Voice and Data Communication Technologies
- Information Technology Innovation, Leadership, and Entrepreneurship
- · System Administration
- · Systems Analysis
- · Web Design and Application Development

#### Mechanical, Materials, and Aerospace Engineering

Computer Integrated Design and Manufacturing

#### **Physics**

Radiological Physics

## **Psychology**

- · Psychiatric Rehabilitation
- · Rehabilitation Counseling
- · Rehabilitation Engineering Technology

# **Professional Certificates**

## **Stuart School of Business**

#### **Business Administration**

- · Business Analyst
- · Compliance and Pollution Prevention
- · Corporate Finance
- · Entrepreneurial Finance
- · Financial Economics
- · Financial Modeling
- · Financial Toolbox
- Fundamentals of Finance
- Innovation and Emerging Enterprises
- Investments
- · Marketing Management
- · Risk Management
- · Sustainable Enterprise
- Trading

#### **Public Administration**

- · Economic Development and Social Entrepreneurship
- · Nonprofit and Mission-Driven Management
- · Public Management
- · Security, Safety, and Risk Management

# **Undergraduate Programs**

A complete description of undergraduate programs and admission requirements is available from the Office of Undergraduate Admission at admissions.iit.edu/undergraduate/.