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## **Graduate Degree Programs and General Requirements**

The university's Armour College of Engineering, Chicago-Kent College of Law, College of Architecture, College of Computing, Institute of Design, Lewis College of Science and Letters, 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

Architectural Engineering

Biology

Biomedical Engineering Chemical Engineering

Chemistry

Civil Engineering Clinical Psychology Computer Engineering Computer Science

Design

Electrical Engineering
Environmental Engineering

Finance

Food Science and Nutrition

Industrial-Organizational Psychology Management Science and Analytics Materials Science and Engineering Mechanical and Aerospace Engineering Molecular Biochemistry and Biophysics

Physics Psychology

Rehabilitation Counseling Education Technology and Humanities

## **Law Degrees**

Juris Doctor (J.D.)

Master of Laws (LL.M.)

Master of Laws Global Business and Financial Law

J.D./LL.M. in Family Law

J.D./LL.M. in Financial Services Law (joint degree)

J.D./LL.M. in Taxation (joint degree)

J.D./M.B.A. (joint degree) J.D./M.P.A. (joint degree)

 $\label{eq:J.D.M.S.} \textit{in Environmental Management and Sustainability (joint and Sustainability$ 

degree)

J.D./M.S. in Finance (joint degree)

J.D./Master of Public Health (joint degree in cooperation with

University of Illinois at Chicago)

## **Master of Science Degrees**

Advanced Manufacturing Analytical Chemistry

Applied Cybersecurity and Digital Forensics

Applied Mathematics
Applied Physics

**Architectural Engineering** 

Architecture

Autonomous Systems and Robotics

Biology

Biology for the Health Professions Biomedical Data Science and Modeling

Biomedical Engineering Chemical Engineering

Chemistry Civil Engineering Clinical Counseling

Computational Decision Sciences and Operations Research

Computer Engineering

Computer Engineering/Electrical Engineering (dual degree)

Computer Science Electrical Engineering Environmental Engineering

Finance

Financial Economics
Food Process Engineering
Food Safety and Technology
Industrial-Organizational Psychol

Industrial-Organizational Psychology Information Technology and Management Management Science and Analytics

Marketing Analytics

Materials Science and Engineering Mechanical and Aerospace Engineering Medical Devices and Biomaterials Molecular Biochemistry and Biophysics

Nutrition Science People Analytics Physics

**Project Management** 

Psychology

Rehabilitation and Mental Health Counseling

Sensor Science and Technology

Sustainability Analytics and Management

**Technical Communication and Information Architecture** 

Technological Entrepreneurship 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 may be 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.

Advanced Manufacturing (M.E.)

**Applied Mathematics** 

Architecture

Architecture/Landscape Architecture (dual degree)

Architectural Engineering (M.E.)

Artificial Intelligence

Artificial Intelligence for Computer Vision and Control (M.E.)

Biological Engineering Biomedical Engineering (M.E.) Biomedical Imaging and Signals Business Administration (M.B.A.)

Business Administration: Business Analytics

Business Administration: Coursera

Business Administration: Quantitative Finance Business Administration/Design (dual degree)

Business Administration/M.S. in Environmental Management and

Sustainability (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
Computational Engineering

Computer Engineering in Internet of Things

Computer Science

Construction Engineering and Management (M.E.)

Cyber Forensics and Security Cyber Security Engineering

Cybersecurity

Data Science

Data Science: Cousera

Design

Design Methods

Design/Public Administration (dual degree) Electrical and Computer Engineering

Electrical and computer Engineer Electricity Markets Energy Systems (M.E.)

Engineering Management

Environmental Engineering (M.E.)

Financial Technology Food Process Engineering Food Safety and Technology

**Health Physics** 

**High Performance Buildings** 

**Industrial Technology and Operations** 

Information Technology

Information Technology and Management Intellectual Property Management and Markets

Landscape Architecture

Management

Manufacturing Engineering (M.E.)

Materials Chemistry

Materials Science and Engineering (M.E.) Mechanical and Aerospace Engineering (M.E.)

Network Engineering Pharmaceutical Engineering

**Power Engineering** 

Public Administration (M.P.A.)

Public Works (M.P.W.)

Structural Engineering (M.E.)
Tall Building and Vertical Urbanism

Taxation

Technological Entrepreneurship

Telecommunications and Software Engineering

Transportation Engineering (M.E.) Urban Systems Engineering (M.E.) VLSI and Microelectronics

Wireless Communications and Computer Networks

## **Incubator Programs**

Incubator programs are new state-of-the-art degree programs. They combine more than one discipline in their composition (see below). They are developed with best practices in mind so that students have multiple options, including changing majors to another discipline that the incubator program allows them to experience and gain credits towards. If an initially offered incubator program is not permanently adopted by the faculty, students will be able to complete their studies in the original program or change majors.

Incubator Programs contain the core of two current majors being offered for the purpose of maintaining existing courses and keeping the development of new courses to an absolute minimum. This would include the core of the curriculum and maintain a 'module' of free electives. There will be multiple points of curricular integration, inclusive of early in the program by design but also at different stages of the program. Some courses would, in particular, act as points of intersection between the disciplines, inclusive of practicum, experience-based, research, and entrepreneurial approaches. To help meet our learning objectives and intended contribution to a multidisciplinary program, no more than two courses may count for both disciplines in the combined major's program.

The (temporary programs under the) incubator maintains faculty and administrative oversight, simplifying the process of offering new programs. It follows the CIM process for "Not Significant" changes, even as new programs will need to be properly reported to our accrediting bodies:

- 1. A norm of 32 credits.
- 2. Setting up modules consisting of the following; discipline topic 1, discipline topic 2 and free electives may be considered as a structure.

- 3. A question will arise of what balance to strike. The incubator approach will instruct us as an institution on the right 'formula' for student success.
- 4. All new programs will undergo appropriate regulatory processes, including required accreditation review and submission, both on initial approval, and if sunset without transitioning out of the incubator to regular status, upon decommissioning
- 5. Program proposed, developed (including a minimal outline of an assessment program, with a specific designated assessment coordinator responsible for annual reports), and approved within the Academic Unit with Academic Dean approval.
- 6. Proposed, discussed, and approved at appropriate studies committee.
- 7. Proposed, discussed, and approved by the UFC.
- 8. Accepted by Provost and President.

## Accelerate Master's Program (AMP)

There are four paths to the completion of an accelerated master's degree at Illinois Tech:

- 1. Co-terminal paired bachelor's and master's programs completed concurrently (see more information in the Co-Terminal Degree Programs section (p. 4))
  - a. These programs have been pre-selected for pairing between the same academic discipline of undergraduate study or a different discipline.
  - b. Graduate co-terminal admission is required when a student reaches a minimum of 60 earned or in-progress credit hours (see more information in the Synopsis of Co-Terminal Studies section).
  - c. The student must submit a declaration of shared and non-shared courses (explicitly for graduate use) in the first semester of co-
- 2. Co-terminal unpaired bachelor's and master's programs completed concurrently
  - a. These programs are not a pre-selected pair.
  - b. The student must have advance approval from both the undergraduate and graduate academic units for the program of interest, including the intended shared courses.
    - i. The approval process is called a Declaration of Intent and may be filed after the first semester of undergraduate enrollment.
    - ii. Selected shared courses must explicitly satisfy the approved graduate curriculum without course substitution.
  - c. Subsequent admission to the master's program of interest is required.
  - d. The student must submit a declaration of shared and non-shared courses (explicitly for graduate use) in the first semester of coterminal enrollment.
- 3. Post-baccalaureate master's program (Illinois Tech alums only)
  - a. A master's program that has explicit course requirements, of which the student has fulfilled some shared courses during the completion of an Illinois Tech bachelor's degree.
  - b. The bachelors will be earned no earlier than three years prior to the first term of master's enrollment.
    - i. Up to nine credit hours of relevant coursework may be shared between the two degrees.
    - ii. Consideration of course substitution is at the discretion of the graduate academic unit.
- 4. Dual degree program with an Illinois Tech partner institution
  - a. Two concurrent master's degree programs, with prior agreement for specific programs between Illinois Tech and a selected partner institution.
  - b. The number of applicable shared credits is determined by the terms of the partnership agreement, but may not exceed nine credit hours. In most cases six credit hours are allowed.
  - c. Consideration of course substitution is at the discretion of the graduate academic unit.

## **Dual Graduate Degrees**

Depending upon interest, capabilities, and goals, and with the permission of their advisors and academic unit heads, students may choose dual (joint) graduate degree programs with up to 9 shared credits, or select one of the options listed below:

Master of Design/Master of Public Administration

Master of Management/Master of Information Technology and Management

Master of Management/Master of Science in Computer Science

Master of Laws/Master of Business Administration

Master of Science in Industrial-Organizational Psychology/Master of Management

## **Co-Terminal Degree Programs**

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 nine credit hours), students may complete both a bachelor's and master's degree in as few as five years. Up to a combined total of nine applicable credit hours earned prior to matriculation into an Illinois Institute of Technology graduate degree program, subject to the graduate studies rules and restrictions, may be considered for 1) external transfer credit for graduate transfer credit use; 2) internal transfer credit from an Illinois Institute of Technology undergraduate program; and/or 3) shared coterminal program credit. More information regarding this policy is available in the Transfer Credit section of the Graduate Bulletin.

All co-terminal degree requirements must be completed within six years of undergraduate matriculation, or the student will be dismissed from the co-terminal degree program. A student who is placed on undergraduate academic probation may be dismissed from the co-terminal program pending review.

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

The following are legacy co-terminal degree pairings as of June 2022. Students may also work with advisers to identify alternate bachelor's and master's degree pairings, pending the approval of the prospective graduate program and the student's undergraduate program. More information is available in the Co-Terminal Advising section of this bulletin.

#### **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 Applied Mathematics/Master of Mathematical Finance

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

#### **Architecture**

Bachelor of Architecture/Master of Engineering in Construction Engineering and Management 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 for the Health Professions

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 Biology/Master of Science in Biology for the Health Professions

Bachelor of Science in Biomedical Engineering/Master of Science in Biology for the Health Professions

Bachelor of Science in Chemistry/Master of Science in Biology for the Health Professions

Bachelor of Science in Molecular Biochemistry and Biophysics/Master of Science in Molecular Biochemistry and Biophysics

#### **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 Chemistry/Master of Science in Sustainability Analytics and Management

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

### 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 Structural Engineering Bachelor of Science in Civil Engineering/Master of Engineering in Transportation Engineering Bachelor of Science in Engineering Management/Master of Public Administration

#### **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 Artificial Intelligence/Master of Artificial Intelligence

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 Artificial Intelligence

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 Science in Computer Engineering

Bachelor of Science in Computer Engineering/Master of Science in Electrical 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 Materials Science and Engineering/Master of Engineering in Materials Science and 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.

### **Biology**

Cell and Molecular Biology Genomics Microbiology and Immunology

### **Chemical and Biological Engineering**

**Biological Engineering Current Energy Issues** Pharmaceutical Engineering Polymer Science and Engineering **Process Operations Management** 

#### Chemistry

**Analytical Method Development Analytical Spectroscopy** Chromatography Materials Chemistry Regulatory Science

#### Civil, Architectural, and Environmental Engineering

**Architectural Engineering Building Energy Modeling Construction Management** Earthquake and Wind Engineering Design Infrastructure Engineering and Management Transportation Systems Planning

#### **Computer Science**

Computational Intelligence Cyber-Physical Systems **Data Analytics Database Systems** Distributed and Cloud Computing Information Security and Assurance **Networking and Communications** 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

### **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
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 Product Quality and Reliability Assurance

### **Physics**

Radiological Physics

### **Psychology**

Psychiatric Rehabilitation Rehabilitation Counseling Rehabilitation Engineering Technology

# **Professional Certificates**Stuart School of Business

#### **Business Administration**

Compliance and Pollution Prevention Corporate Finance Financial Toolbox Innovation and Emerging Enterprises 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