# **ARMOUR COLLEGE OF ENGINEERING**

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Armour College of Engineering traces its roots to Armour Institute, founded in 1892 to prepare students of all backgrounds for leadership roles—primarily as engineers—in a challenging industrial society. Armour College carries on that tradition of excellence in engineering education and research with about 100 full-time faculty and over 2,100 undergraduate and graduate students that are enrolled in a variety of degree programs offered in five departments. Nine of the undergraduate degrees offered by Armour College are accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET). All Illinois Institute of Technology graduate and undergraduate programs are also accredited by the Higher Learning Commission (HLC).

An Armour College education integrates innovative thought, entrepreneurship, creativity, and design with engineering theory, research, and practice to position its students to realize technological solutions to societal challenges in service to humanity. Team-based and experiential learning opportunities inside and outside the classroom as well as partnerships with industry and other on-campus resources like the Kaplan Institute for Innovation and Tech Entrepreneurship not only prepare Armour students to respond adeptly to emerging technologies and workforce needs, but also cultivate their growth as leaders and innovators.

### **Armour College of Engineering Interdisciplinary Programs**

- Master of Computational Engineering
  - Biomedicine Track (Department of Biomedical Engineering)
  - · Computational Chemical Engineering Track (Department of Chemical and Biological Engineering)
  - · Computational Mechanics Track (Department of Mechanical, Materials, and Aerospace Engineering)
  - · Optimization, Machine Vision, and Decision Making Track (Department of Electrical and Computer Engineering)
- Master of Engineering Management
  - · Product Design and Development Track (Department of Mechanical, Materials, and Aerospace Engineering)
  - Project Management Track (Department of Civil, Architectural, and Environmental Engineering)
- · Master of Pharmaceutical Engineering (Department of Chemical and Biological Engineering)
- · Master of Engineering in Advanced Manufacturing
  - · Additive Manufacturing Track (Department of Mechanical, Materials, and Aerospace Engineering)
  - · Automation and Control Systems Track (Department of Electrical and Computer Engineering)
  - Digital Manufacturing Track (Department of Mechanical, Materials, and Aerospace Engineering)
- Master of Engineering in Energy Systems
  - Energy Conservation and Buildings Track (Department of Civil, Architectural, and Environmental Engineering)
  - · Energy Generation and Sustainability Track (Department of Mechanical, Materials, and Aerospace Engineering)
  - · Energy Transmission and Markets Track (Department of Electrical and Computer Engineering)
- · Master of Engineering in Urban Systems Engineering (Department of Civil, Architectural, and Environmental Engineering)

### **Biomedical Engineering**

- Master of Engineering in Biomedical Engineering
- · Master of Science in Biomedical Data Science and Modeling
- · Master of Science in Biomedical Engineering
- · Master of Science in Medical Devices and Biomaterials
- · Doctor of Philosophy in Biomedical Engineering

## **Chemical and Biological Engineering**

- Master of Biological Engineering
- Master of Chemical Engineering
- Master of Science in Chemical Engineering
- · Doctor of Philosophy in Chemical Engineering

### **Certificate Programs**

- Biological Engineering
- Current Energy Issues
- Pharmaceutical Engineering
- Polymer Science and Engineering
- Process Operation Management

# **Civil, Architectural, and Environmental Engineering**

- Master of Engineering in Architectural Engineering
- Master of Engineering in Construction Engineering and Management
- Master of Engineering in Environmental Engineering
- Master of Engineering in Structural Engineering
- Master of Engineering in Transportation Engineering
- Master of Public Works
- Master of Science in Architectural Engineering
- Master of Science in Civil Engineering with specialization in:

Construction Engineering and Management Structural Engineering Transportation Engineering

- Master of Science in Environmental Engineering
- Doctor of Philosophy in Civil Engineering
- · Doctor of Philosophy in Environmental Engineering

### **Interdisciplinary Program**

• Master of Engineering in Environmental Engineering with Specialization in Energy/Environment/Economics (E3)

### **Certificate Program in Architectural Engineering**

- Architectural Engineering
- Building Energy Modeling

### **Certificate Programs in Civil Engineering**

- Construction Management
- Earthquake and Wind Engineering Design
- Infrastructure Engineering and Management
- Transportation Systems Planning

# **Electrical and Computer Engineering**

- Master of Biomedical Imaging and Signals
- Master of Computer Engineering in Internet of Things
- Master of Cyber Security Engineering
- Master of Electrical and Computer Engineering
- Master of Engineering in Artificial Intelligence for Computer Vision and Control
- · Master of Engineering in Wireless Communications and Computer Networks
- Master of Network Engineering
- Master of Power Engineering
- Master of VLSI and Microelectronics
- Master of Science in Computer Engineering
- Master of Science in Electrical Engineering
- Doctor of Philosophy in Computer Engineering
- Doctor of Philosophy in Electrical Engineering

### **Dual Degree Program**

· Master of Science in Computer Engineering and Electrical Engineering

#### **Joint Degree Programs**

- · Master of Telecommunications and Software Engineering (with Computer Science)
- · Master of Electricity Markets (with Finance)

#### **Interdisciplinary Programs**

- Master of Electrical and Computer Engineering with Specialization in Energy/Environment/Economics (E3)
- · Master of Science in Electrical Engineering with Specialization in Energy/Environment/Economics (E3)
- Doctor of Philosophy in Electrical Engineering with Specialization in Energy/Environment/Economics (E3)

### **Certificate Programs**

- Advanced Electronics
- Applied Electromagnetics
- Communication Systems
- Computer Engineering
- Control Systems
- Electricity Markets
- Power Electronics
- Power Engineering
- Signal Processing
- Wireless Communications Engineering

### **Industrial Technology and Management**

Master in Industrial Technology and Operations

### Mechanical, Materials, and Aerospace Engineering

- Master of Engineering in Manufacturing Engineering
- Master of Engineering in Materials Science and Engineering
- · Master of Engineering in Mechanical and Aerospace Engineering
- · Master of Science in Advanced Manufacturing
- · Master of Science in Autonomous Robotic Systems
- · Master of Science in Materials Science and Engineering
- · Master of Science in Mechanical and Aerospace Engineering
- Doctor of Philosophy in Materials Science and Engineering
- · Doctor of Philosophy in Mechanical and Aerospace Engineering

#### **Certificate Programs**

- Computer Integrated Design and Manufacturing
- · Product Quality and Reliability Assurance