DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING

Industrial and systems engineering is an engineering discipline devoted to the design, installation, improvement and control of integrated systems of people, materials, and facilities in a wide range of organizations that produce goods or render services. Like other engineering fields, industrial engineering is concerned with solving problems through the application of specialized knowledge in mathematics and science, as well as the principles of engineering. Two major distinctions of our discipline, among the engineering disciplines, is the unique focus of industrial and systems engineering on human factors and the quantification and systematic removal of uncertainty from production systems. Industrial and systems engineering has five major focus areas: advanced manufacturing, operations research, data sciences and machine learning, health and human systems, and systems engineering.

An important characteristic of industrial and systems engineering is its systems approach to integrate the basic resources of production and service systems and other relevant resources, such as information and energy, in such a way as to create a smooth, efficient and competitive operation within an enterprise. Industrial and systems engineers are needed in virtually all types of enterprises, ranging from industries such as manufacturing, distribution, logistics, transportation, and construction; service sectors such as health care, telecommunications, retail, banking, and engineering consulting to government agencies, military, and non-profit organizations.

The mission of the Industrial and Systems Engineering program is to serve the state, nation, and global community by educating industrial engineering students to be well founded in engineering fundamentals and to have the knowledge and skills required to design, develop, improve, implement and control sophisticated production and service systems in an environment characterized by complex technical and social challenges. Throughout this educational process, students will be instilled with the highest standards of professional and ethical behavior. It is the intent of the undergraduate industrial engineering program to equip its graduates to achieve the following accomplishments a few years after graduation:

1. Graduates will be successful in improving operations by solving complex industrial and systems engineering problems.
2. Graduates will demonstrate professional leadership.
3. Graduates will be instilled with the motivation and ability to accomplish professional life-long learning.

The undergraduate program in Industrial Engineering at Texas A&M University is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Industrial and Systems Engineering students may participate in the Undergraduate Minor Program offered by Texas A&M. This program is usually comprised of 15 to 18 hours, some of which may be substituted as technical electives. The most common minors are math, business and economics. The department also has a Fast Track Program for academically qualified students who want to take selected graduate courses and receive both graduate and undergraduate credit by meeting specific requirements. The department encourages students to participate in industrial internships or the Cooperative Education Program to acquire practical experience to complement their industrial engineering education. Internships are generally encouraged during the summer months only. Students who participate in the Co-op program during three academic semesters may count the three credit hours as a technical elective in their curriculum.

Graduate degrees including the Master of Science (MS), Master of Engineering (M.Eng.), and Doctor of Philosophy (PhD) are also offered by the department in addition to the Bachelor of Science in Industrial Engineering. For graduate degree information, please see the Texas A&M University Graduate Catalog.

Before commencing course work in the major, students must be admitted to the major or have the approval of the department.

Faculty

Aprahamian, Hrayer, Assistant Professor
Industrial & Systems Eng
PHD, Virginia Tech, 2018

Banerjee, Amarnath P, Professor
Industrial & Systems Eng
PHD, University of Illinois at Chicago, 1999

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PHD, Texas A&M University, 2006

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PHD, Texas Tech University, 1970

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PHD, Pennsylvania State University, 1997

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PHD, University of Florida, 2003

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PHD, Texas A&M University, 1996
Feldman, Richard M, Senior Professor  
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PHD, Northwestern University, 1975

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Garcia, Alfredo A, Professor  
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Graul, Michael H, Associate Professor of the Practice  
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PHD, Texas A&M University, 1995

Graves, Gregory H, Professor of the Practice  
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PHD, North Carolina State University, 2007

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Industrial & Systems Eng  
PHD, Texas A&M University, 1979

Kum, Hye Chung, Associate Professor  
Industrial & Systems Eng  
PHD, University of North Carolina - Chapel Hill, 2004

Kumar, Panganamala R, Professor  
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PHD, Washington University in St. Louis, 1977

Lawley, Mark A, Professor  
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PHD, University of Illinois at Urbana-Champaign, 1995

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PHD, Lehigh University, 1991

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PHD, University of South Florida, 1987

Mayer, Richard John, Adjunct Professor  
Industrial & Systems Eng  
PHD, Texas A&M University, 1998

McDonald, Anthony D, Assistant Professor  
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PHD, University of Wisconsin - Madison, 2014

Mehta, Ranjana K, Associate Professor  
Industrial & Systems Eng  
PHD, Virginia Tech, 2011

Momcilovic, Petar, Associate Professor  
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PHD, Columbia University, 2003

Moreno Centeno, Erick, Associate Professor  
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PHD, University of California, Berkeley, 2010

Ntiamo, Lewis, Professor  
Industrial & Systems Eng  
PHD, University of Arizona, 2004

Pei, Zhijian, Professor  
Industrial & Systems Eng  
PHD, University of Illinois, 1995

Peres, S Camille, Assistant Professor  
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Pickens, Adam W, Assistant Professor  
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PHD, University of Toronto, 2015

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PHD, University of Arkansas, 1973

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Wang, Yen J, Instructional Assistant Professor
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DEN, Northwestern University, 1991

Wortman, Martin A, Senior Professor
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PHD, Virginia Tech, 1988

Zahabi, Maryam, Assistant Professor
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PHD, North Carolina State University, 2017

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PHD, University of Wisconsin, Madison, 2009

Zhang, Xudong, Professor
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PHD, University of Michigan Ann Arbor, 1997

Zou, Na, Instructional Assistant Professor
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PHD, Arizona State University, 2015

**Majors**

- Bachelor of Science in Industrial Engineering (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/industrial-bs/)
- Bachelor of Science in Industrial Engineering and Master of Public Health in Occupational Safety and Health, 5-Year Degree Program (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/industrial-bs-occupational-safety-and-health-mph/)
- Bachelor of Science in Industrial Engineering and Master of Science in Finance, 5-Year Degree Program (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/industrial-bs-finance-ms/)

**Minors**

- Industrial Engineering Minor (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/industrial-minor/)

**Certificates**

- Data Center Operations Engineering Certificate (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/data-center-operations-certificate/)
- Engineering Systems Management Certificate (http://catalog.tamu.edu/undergraduate/engineering/industrial-systems/engineering-systems-management-certificate/)