Graduate

Industrial Engineering

SIUe

School of Engineering
Department of
Mechanical and Industrial Engineering

Degrees Available at SIUE

- Master of Science in Industrial Engineering
- Master of Science in Integrative Studies - Engineering Management
- PhD in Engineering Science, a cooperative program with SIU Carbondale

Combined Program

Early Entry BS and MS in Industrial Engineering

Industrial Engineering at SIUE

The SIUE School of Engineering offers a master of science degree in industrial engineering within the Department of Mechanical and Industrial Engineering. There are four areas of concentration: systems optimization, manufacturing engineering design, enterprise and production control, and quality engineering. Core courses are offered in the areas of engineering optimization, quality control, production planning, and manufacturing design. The core courses are offered annually; other courses are generally offered once every two years.

Career Opportunities

More professionals are earning graduate degrees, adding to the competitive nature of the marketplace. It is imperative to explore graduate education as an avenue to achieve a higher level of career success. Whether students want to move up the ladder, find a niche teaching in higher education or pursue consulting opportunities, they can leverage themselves with a graduate degree in industrial engineering at SIUE. Companies like The Boeing Co., Emerson Electric and Covidien hire many SIUE graduates. A graduate degree places students in a network of highly skilled and educated professionals who work in the region, across the country and around the world.

Admission Requirements

- Graduate School application and $40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate grade point average of at least 2.75 (A=4.0) in engineering, mathematics and physical science courses.
- Applicants should have a baccalaureate degree in an engineering discipline from an ABET accredited program. Applicants who completed a non-ABET accredited program or whose undergraduate studies were in a country other than the United States must have a baccalaureate degree in an engineering discipline which is comparable to the United States' bachelor's equivalent, and must take the Graduate Records Examination (GRE) (verbal, quantitative and analytical portions) to support their application.
- Applicants from selected areas of mathematical and physical science will be considered for admission on an individual basis.
- In cases where the applicant has not completed the prerequisites for core or elective courses, the applicant may be required to complete those courses as "not for graduate credit"
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Graduate Admissions office with questions regarding the application submission process at graduateadmissions@siue.edu.

In exceptional cases, the graduate admissions committee may consider applicants who meet all of the Graduate School admission standards but who do not meet certain specified program admission requirements. The committee may consider other evidence that indicates high promise of the applicant's success in the program. Such supportive evidence may include high scores on the GRE, professional registration, extensive professional experience, professional publications or satisfactory graduate-level work.

Review the SIUE Admissions Policy for more information.

Faculty

Xin Chen, PhD
Graduate Program Director
2009, Purdue University
Supply Chain Logistics, Financial Engineering and Operations Research
xchen@siue.edu

Sohyung Cho, PhD
2000, Pennsylvania State University
Robotics, Biomechanics, Manufacturing Automation and Control

Emmanuel S. Eneyo, PhD
1991, Purdue University
Production Planning and Control, Project Management, Lean Methodologies and Engineering Economic Analysis

S. Cem Karacal, PhD
1991, Oklahoma State University
Quality Control, Operations Research Simulation

Hoo Sang Ko, PhD
2010, Purdue University
Machine Learning, Intelligent Systems, IT Applications, Computer Simulation and Design of Experiments

H. Felix Lee, PhD
1989, University of Michigan
3D Modeling for Product Design and Engineering Applications, Simulation, and Continuous Quality Improvements

Sinan Onal, PhD
2014, University of South Florida
Computer-Aided Diagnosis, Product Development and Medical Applications, Manufacturing and R&D Strategy, Engineering Management and Leadership

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
GRADUATE SCHOOL

Graduation Requirements

After all other program requirements are satisfied, a final examination on the course work and related material on the thesis or project will be given. In the thesis option, the final examination is an oral examination directed primarily at the material in the thesis. This examination is conducted by the advisory committee. In the non-thesis option, the final examination is an oral examination directed primarily at the material in the project and related research paper.

Review the graduation policy for more information.

Curriculum

The program offers both thesis and non-thesis options. The thesis option requires 30 credit hours; the non-thesis option requires 33 hours. Of the required 30 credit hours of the thesis option, at least 15 credit hours must be industrial engineering 500-level credit hours, excluding IE 599. At least 21 credit hours must be in industrial engineering courses, and up to six hours may be thesis credit. Of the required 33 hours of non-thesis option, at least 18 credit hours must be industrial engineering 500-level credit hours. At least 24 credit hours must be in industrial engineering courses. Students who choose the non-thesis option must complete a research project, which has zero credit hour.

The specific program of study is selected by the student in consultation with and approved by the student's advisor. All students are required to complete the program's core courses: IE 465-Design and Control of Quality Systems, IE 483-Production Planning and Control, IE 515-Engineering Optimization Models, and IE 576-Advanced Computer Integrated Manufacturing Systems. Students having completed these or similar courses as part of a baccalaureate degree may choose other courses in the same core area with the approval of their advisor.

Four courses of emphasis (systems optimization, manufacturing engineering design, enterprise and production control, and quality engineering) are currently being offered by the program. Students will be guided in thesis work by a thesis advisor with the assistance and concurrence of an advisory committee. The thesis topic will be selected from an area in Industrial Engineering and approved by the student's advisor. Writing a thesis involves an intensive research effort and students are encouraged to initiate their thesis work early in the program, even before registering for any thesis credit. Upon the completion of the student's research, a thesis defense will be conducted. In the non-thesis option, students must complete a research project and the student's advisor may organize a project presentation during the final semester of study.

Contact Information

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This information is concurrent with the 2018-2019 Academic Catalog.
Courses are subject to change at any time.

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