DEPARTMENT OF

INDUSTRIAL & SYSTEMS ENGINEERING

GRADUATE PROGRAMS

UF | UNIVERSITY of FLORIDA

MASTER'S PROGRAM

The Department of Industrial and Systems Engineering at the University of Florida offers a **Master of Science (M.S.)** and a **Master of Engineering (M.E.)** degree.

Each degree has a thesis or non-thesis option and offers flexibility in terms of courses and delivery methods to meet the academic goals of full-time students as well as working professionals.

DEGREE OPTIONS		
On-Campus	31 credit hours	Gainesville, FL
UF EDGE	31 credit hours	Online
UF REEF	31 credit hours	Shalimar, FL
Outreach Engineering Management	32 credit hours	Orlando, FL

TO APPLY:

The application process requires you to submit your application to the UF Office of Admissions, as well as the Department of Industrial & Systems Engineering.

1. Complete your online application
2. Upload supporting documents, which include a statement of purpose, resume, transcripts and three references
3. Report official test scores
4. Send confirmation email to the ISE department
5. Mail all documents to the UF Admissions Office

ON **CAMPUS**

The traditional, on-campus master's program must be completed with a minimum of 31 credit hours. For students who choose the thesis option, three to six thesis credits must be taken. Students who choose a non-thesis option are required to complete at least one pre-approved project course at most six months before graduation.

UF **EDGE**

UF EDGE is the distance learning program of the Herbert Wertheim College of Engineering, and offers both M.S. and M.E. degrees. Course lectures and materials are offered completely online.

In order to pursue an M.S. or M.E. degree in industrial and systems engineering through UF EDGE, prospective students need to apply and be accepted into both the UF Graduate Program, as well as the UF Industrial and Systems Engineering Program.

For more information on UF EDGE, visit:
www.ufedge.ufl.edu

UF **REEF**

The UF Research & Engineering Education Facility (REEF) is located in Shalimar, FL and supports the greater Eglin Air Force Base community and responds to Air Force research needs.

UF REEF offers a 31 credit hour online M.S. degree program in industrial and systems engineering to the Eglin Air Force Base community via UF EDGE. Students are also provided with the opportunity to work with world-class researchers from UF and the Air Force.

For more information, visit **www.reef.ufl.edu**

OEM PROGRAM

The Outreach Engineering Management (OEM) Program is a master's program offered by the Department of Industrial and Systems Engineering and is designed for working professionals with various technical backgrounds. Beginning each August, the 20-month program is held in Orlando and features live instruction one weekend a month.

Through a combination of ISE and MBA coursework taught by both ISE and business faculty, students go beyond their technical expertise by expanding their skill sets as industrial and systems engineers as they learn to mitigate risk and make informed business decisions by using mathematical modeling tools.

Admission requirements include:

- A bachelor's degree from a regionally accredited university
- Knowledge of calculus, linear algebra/matrix methods, computer programming, and probability/statistics
- A GPA of 3.0 or higher on all coursework completed after the first 60 semester hours of undergraduate study
- Two years full-time, professional work experience preferred

For more information, visit **www.ise.ufl.edu/oem**

DOCTORAL PROGRAM

The doctoral program in industrial and systems engineering addresses a range of methodological areas, including data analytics, human-performance modeling, and operations research.

Faculty research expertise includes data mining and statistical learning, financial engineering, healthcare modeling, human-system analysis, manufacturing systems modeling and analysis, optimization, production planning, risk analysis, and stochastic modeling.

A minimum of 90 credits is required for the Ph.D. degree, including: **30 credits** for a Master's Degree, **nine credits** of Qualifying Exam courses, **nine credits** to satisfy the Breadth Requirement (coursework outside of the department), **27 credits** for Advanced Technical Electives/Research, and **15 credits** for Dissertation Research.

CENTERS & LABS

CENTER FOR APPLIED OPTIMIZATION LAB

The Center for Applied Optimization (CAO) at the University of Florida promotes interdisciplinary applied research among faculty from engineering, mathematics, business and other fields.

Faculty: *Yongpei Guan, Ph.D., Endowed Professor, Aleksandr Kazachkov, Ph.D. Assistant Professor, Hongcheng Liu, Ph.D., Associate Professor, Jorge A. Sefair, Ph.D., Associate Professor, Alexander Semenov, Ph.D., Research Assistant Professor, Yu Yang, Ph.D., Assistant Professor*

COMPUTATIONAL OPTIMIZATION & ENERGY SYSTEMS LAB

The Computational Optimizations & Energy Systems (CSO) Lab at the University of Florida is focused on modeling of large-scale, stochastic integer programs. Current applications include electricity grid distribution and operation and supply chain logistics.

Faculty: *Yongpei Guan, Ph.D., Endowed Professor*

DATA INFORMATICS FOR SYSTEMS IMPROVEMENT & DESIGN LAB

The Data Informatics for Systems Improvement and Design (DISIDE) Laboratory's mission is to study and develop efficient data analytics and operations research algorithms for designing, modeling, monitoring, and controlling data-rich systems for performance improvement.

Faculty: *Mostafa Reisi Gahrooei, Ph.D., Assistant Professor, Xiaochen Xian, Ph.D., Assistant Professor, Minhee Kim, Ph.D., Assistant Professor*

HEALTH-ENGINE LAB

The High Quality Effective Affordable Lean Translational Healthcare-Engineering Lab at the University of Florida is focused on developing rigorous methods for modeling, analysis, design and improvement of service and healthcare delivery systems and applying the results in practice.

Faculty: *Hongcheng Liu, Ph.D., Associate Professor, Xiang Zhong, Ph.D., Associate Professor*

HUMAN SYSTEMS ENGINEERING LAB

The Human Systems Engineering Lab's research areas include transportation human factors and human-autonomous vehicle interaction, applying wearable sensing technology and machine learning in occupational injury prevention and rehabilitation, and improving user interactions with new and emerging technologies in safety-critical systems.

Faculty: *Wayne Giang, Ph.D., Assistant Professor, Boyi Hu, Ph.D., Assistant Professor, David Kaber, Ph.D., Dean's Leadership Professor*

INTERDISCIPLINARY MANUFACTURING ENGINEERING & DESIGN

The Interdisciplinary Manufacturing Engineering and Design (iMED) Lab at the University of Florida specializes in research intended to design scalable fabrication techniques of customized material systems. Material design emphasis is in polymer and metal composites, while traditional and nondestructive testing techniques are employed for characterization and modeling of newly devised and fabricated materials.

Faculty: *Iris Rivero, Ph.D., Department Chair*

SUPPLY CHAIN & LOGISTICS ENGINEERING LAB

The Supply Chain & Logistics Engineering Lab at the University of Florida is an interdisciplinary center that encourages joint research and applied projects among faculty from engineering, computer science and business administration in conjuction with industry participants.

Faculty: *Elif Akçalı, Ph.D., Associate Professor*

UF DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING
1949 Stadium Road
303 Weil Hall
Gainesville, FL 32611
P. 352.392.1464 | F. 352.392.3537 | ise.ufl.edu