

University of South Florida (USF)  
Industrial & Management Systems Engineering (IMSE)

---

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING (MSIE)

**DEGREE REQUIREMENTS (FROM FALL 2021 INTAKE ONWARD)**

- A minimum of 30 credit hours, of which at least 16 hours must be at the 6000 level
- *Non-thesis option:*
  - 30 hours of formal coursework, including four core and six elective courses
- *Thesis option:*
  - At least 24 hours of formal coursework, including four core and four elective courses
  - A minimum of six thesis hours
  - A formal thesis proposal and a formal thesis defense
  - Acceptance of at least one refereed conference or journal paper
- A minimum GPA of 3.0/4.0
- No grade of C- or below will be accepted toward the degree

**Core courses<sup>1</sup>**

ESI 6247 Statistical Design Models  
EIN 6934 Engineering Analytics I  
ESI 6410 Optimization in OR  
ESI 6340 Probabilistic Systems Analysis

**Elective courses<sup>2</sup>**

Any 5000+ level course with the EIN or ESI prefix (*e.g., EIN 5350 Technology & Finance, EIN 5182 Principles of Engineering Management, EIN 6145 Project Management, EIN 6935 Lean Six Sigma, EIN 6936 Advanced Lean Six Sigma, ESI 6324 Engineering the Supply Chain, EIN 6336 Production Control Systems, EIN 6386 Management of Technological Change, EIN 6319 Work Design & Productivity, EIN 6935 Industrial Information Systems, EIN 6935 Statistical Quality Control, EIN 6934 Engineering Analytics II, and others*).

---

**FREQUENTLY ASKED QUESTIONS (FAQs)**

Please visit <http://www.usf.edu/engineering/imse/graduate/msie.aspx>

---

<sup>1</sup>MSIE students holding the BSIE degree from IMSE/USF: please contact the graduate director for additional information.

<sup>2</sup>The following courses are for PhD students only: ESI 6491 Linear Programming & Network Optimization, ESI 6213 Stochastic Decision Models I, ESI 6635 Advanced Analytics I, EIN 6935 Systems Modeling & Performance Analysis

University of South Florida (USF)  
Industrial & Management Systems Engineering (IMSE)

---

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING (MSIE)

**DEGREE REQUIREMENTS (PRE-FALL 2021 INTAKE)**

- A minimum of 30 credit hours, of which at least 16 hours must be at the 6000 level
- *Non-thesis option:*
  - 30 hours of formal coursework, including three core courses, five IE electives, and two general electives
- *Thesis option:*
  - At least 24 hours of formal coursework, including three core courses and five IE electives
  - A minimum of six thesis hours
  - A formal thesis proposal and a formal thesis defense
  - Acceptance of at least one refereed conference or journal paper
- A minimum GPA of 3.0/4.0 must be maintained
- No grade of C- or below will be accepted toward the degree

**Core courses**

ESI 6410 Optimization in OR  
ESI 6247 Statistical Design Models  
ESI 6340 Probabilistic Systems Analysis

**IE electives** (*select any 5 courses from the list*)

EIN 5350 Technology & Finance	EIN 6935 Nonlinear Optimization
ESI 5236 Reliability Engineering	ESI 6448 Integer Programming
ESI 5306 OR for Eng. Management	EIN 6319 Work Design & Productivity
ESI 5522 Computer Simulation	EIN 6935 Industrial Information Systems
EIN 6145 Project Management	EIN 6935 Statistical Quality Control
EIN 6935 Lean Six Sigma	EIN 6934 Engineering Analytics I
EIN 6936 Advanced Lean Six Sigma	EIN 6934 Engineering Analytics II
ESI 6324 Engineering the Supply Chain	ESI 6635 Advanced Analytics I
EIN 6336 Production Control Systems	EIN 6934 Advanced Analytics II

**General electives**

Any College of Engineering 5000+ level course, including IMSE courses, except for the IE elective courses above (*e.g., EIN 5182 Principles of Engineering Management, EIN 6386 Management of Technological Change, EIN 6934 Systems Integration, EIN 6178 ISO 9000/14000, EIN 6179 Advanced TQM Methods, and others*).

---

**FREQUENTLY ASKED QUESTIONS (FAQs)**

Please visit <http://www.usf.edu/engineering/imse/graduate/msie.aspx>