M.S. in Industrial Engineering and Management

Program Director

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The Master of Science in Industrial Engineering and Management is an interdisciplinary graduate program that emphasizes the areas of industrial engineering, management, and systems engineering.

Industrial Engineering and Management students learn the techniques to reduce cost and improve efficiency. They also learn the skills to become good engineering managers who can use powerful analytic metrics and methods to solve complex problems. They combine their management expertise with engineering knowledge, enabling them to lead teams of specialists in highly technical tasks.

Admission Requirements

The admission requirements of the program are the following:

- Have a Bachelor of Science (B.S.) degree in engineering, physical science, mathematics, or a closely related discipline. The Graduate Program Director will evaluate applicants from other disciplines on an individual basis.
- Have a minimum Grade Point Average (GPA) of 3.00 (A = 4.00) for their bachelor's degree.
- All students are required to submit proof of English proficiency for admission into St. Mary's University. If you have studied in the US, this may fulfill the English proficiency requirement. Proof of English proficiency can be submitted directly to St. Mary's from one of the following ways:
- Test of English as a Foreign Language (TOEFL). A minimum score of 80 on the Internet-based (IB) test is required for full admission.
- International English Language Testing System (IELTS). A minimum band score of 6.0 is required for full admission.
- Duolingo English Test (DET): A minimum score of 105 is required for full admission.
- Submit a completed application form, a written statement of purpose indicating the applicant's interests and objectives, two recommendation letters, official transcripts of all college level work and resume.
- Applicants who fail to meet any of the above requirements may be admitted on a conditional status. The Graduate Program Director will evaluate these cases on an individual basis.

Click on the course number to view course title and description.

MS IEM is a 30-credit hour program. The graduate degree may be earned by one of three plans:

Code	Title	Semester Hours
Plan I - Capstone		
In Major		21
Out of Major (Other EG, CS, GSB, Law and CAHSS selected with program director's permission)		6
Project/Thesis		3
Total Semester Hours		**30**

Code	Title	Semester Hours
Plan II - Thesis		
In Major		18
Out of Major (Other EG, CS, GSB, Law and CAHSS selected with program director's permission)		6
Project/Thesis		6
Total Semester Hours		**30**

Code	Title	Semester Hours
Plan III - All course		
In Major		24
Out of Major (Other EG, CS, GSB, Law and CAHSS selected with program director's permission)		6
Project/Thesis		0
Total Semester Hours		**30**

Students can elect to choose from Capstone project, thesis, and all course options. Students can take up to 6 credits from out of major areas with advisor permission.

MS in Industrial Engineering and Management (IEM) curriculum

Code	Title	Semester Hours
Students in the MS IEM graduate program will take ten 3-credit courses (in a total of 30 credits) among the following courses:		
Operations Research		
EG 6308	Random Variables and Stochastic Processes	
EG 6310	Nonlinear Optimization	
EG 6332	Operations Research I	
EG 6333	Operations Research II	
Lean Six Sigma/APICS		
EG 7306	Total Quality Systems	
EG 6303	Lean Production	
EG XXXX APICS Logistics		
EG XXXX APICS Lean Inventory		
EG XXXX APICS Supply Chain Management		
EG XXXX APICS Supply Chain Finance		
Management		
EG 7353	Project Management	
EG 7356	Engr. Management Leadership and Ethics	
EG XXXX Agile System Development		
EG XXXX Strategy Management		
EG XXXX Entrepreneurship and Innovation		
EG XXXX Financial Resource Management		
EG XXXX Sales and Marketing Communications		
Other		
EG 6301	Statistical Data Analysis	
EG 6304	Reliability & Maintainability	
EG 6305	Economic Analysis for Managerial Decisions	
EG 6307	Sequencing and Scheduling	
EG 6309	Human Factors/Ergonomics	
EG 6331	Computer Simulation	
EG 7303	Safety Engineering & Loss Assessment	
EG 7307	Plant Layout and Facilities Design	
EG 7351	Systems Engineering Concepts	
Capstone Project Option		
EG 8396	Capstone Project	3
Thesis Option		
EG 8390	Thesis I	
EG 8391	Thesis II	
Students can elect to take up to two courses outside of their majors (other EG, CS, GSB, Law courses selected with the advisor permission).		
Students can elect to choose from the capstone project, thesis, or 10-course only options.		