MASTER OF ENGINEERING MANAGEMENT (ONLINE)

Overview

The Master of Engineering Management Program will consist of 30 credits (8 courses of 3 credits each in Industrial and Systems Engineering, one course of 3 credits in the Business Technology Department, and one course in the Management Department totaling 3 credits) which teach core Industrial and Systems Engineering concepts applied to management. The program is designed to be completed in 4 semesters, including one summer. Therefore, a student can start during the spring semester, continue during the summer, fall, and finish the next spring. Thus, the total duration is one year plus one semester.

As part of the program, students will take ISE-671 Engineering Entrepreneurship which includes a comprehensive group design project. Students must create a product or service and develop a full business plan for its commercialization including strategic choices for customer, technology, competition and identity, as well as financial projections. This course is taken at the end of the master's program and serves as capstone course of the program.

A bachelor's degree with a minimum 3.0 GPA from a regionally accredited university is acceptable. Students applying for graduate admission to the College should submit three letters of recommendation from individuals familiar with the applicant's abilities and background.

Students without a STEM background may be required to take additional credits as prerequisites to the program requirements. International students must comply with university English proficiency requirements.

Curriculum Requirements

Code	Title	Credit Hours
Required Engineering Courses		
ISE 670	Engineering Management	3
ISE 612	Statistical Quality Control and Quality Management	3
ISE 616	Introduction to Applied Data Analytics	3
ISE 761	Engineering Cost Management	3
ISE 763	Project Management Techniques	3
ISE 764	Supply Chain Management	3
or ISE 765	Advanced Production Systems	
Required Business Courses		
MGT 603	Leading Teams	3
BTE 621	Management of Digital Transformation	3
Electives		
Technical Elective		3
ISE 764	Supply Chain Management	
ISE 765	Advanced Production Systems	
Any 600 level or above course in the College of Engineering or Herbert Business School		
Capstone		
ISE 671	Engineering Entrepreneurship	3
Total Credit Hours		**30**

Sample Plan of Study

First Year		
Fall		**Credit Hours**
ISE 612	Statistical Quality Control and Quality Management	3
ISE 761	Engineering Cost Management	3
MGT 603	Leading Teams	3
	Credit Hours	**9**
Spring		
ISE 616	Introduction to Applied Data Analytics	3
ISE 670	Engineering Management	3

ISE 764 or 765	Supply Chain Management or Advanced Production Systems	3
	Credit Hours	**9**
Summer		
ISE 763	Project Management Techniques	3
Technical Elective	ISE-764 or ISE-765 or Any 600 level or above in the College of Engineering or Herbert Business School	3
	Credit Hours	**6**
Second Year		
Fall		
ISE 671	Engineering Entrepreneurship	3
BTE 621	Management of Digital Transformation	3
	Credit Hours	**6**
	Total Credit Hours	**30**

College of Engineering Mission Statement

The College of Engineering transforms lives by:

- Creating new knowledge
- Re-creating knowledge for education
- Translating knowledge for commercialization, and
- Applying knowledge to serve the community

Program Objectives

The Master of Engineering Management aims to address the growing demand among engineering practitioners for an advanced degree that combines the technical knowledge of Industrial and Systems Engineering with the practical business expertise of a management program.

- Provide rigorous, business-focused engineering education to those pursuing the degree.
- Educate students in the technical basis of engineering management.
- Provide students with practical knowledge in the implementation of management techniques in engineering environments.

Student Learning Outcomes

- Outcome 1: Graduates will demonstrate an ability to use rigorous data-driven methods to measure, analyze and recommend to solutions to meet the desired business needs.
- Outcome 2: Students will gain an ability to write effectively about advanced topics in Engineering Management.
- Outcome 3: Graduates will have an ability to present their findings effectively about advanced topics in Engineering Management.