

Department of Industrial Management and Technology

Contact Information

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The Master of Science in Industrial Management is an interdisciplinary program that prepares graduates to assume leadership roles and positions in a variety of industrial, processing, and/or construction industries. The program will familiarize students with philosophies and strategies currently used for improving production and provide students with further technical knowledge in areas such as quality assurance, industrial safety, and automated production. Students will also become familiar with research methods and techniques commonly used to solve problems in industrial settings.

Industrial Management (IMEN)

IMEN 5300 Resrch Method & Project Devel **3 SCH (3-1)**

Examination of data collection and analysis with an emphasis on distributions, probability, simple and multiple regression, ANOVA and other statistical analysis technique. Statistical concepts are reinforced using industry-related data and a well known and widely used data analysis software program. Prerequisite: graduate standing.

IMEN 5301 Industrial Management **3 SCH (3-0)**

Concepts and techniques used by supervisors in industrial settings. Effective supervisory strategies to combat global competition will also be covered. Prerequisite: ITEN 1315 or ITEN 3300 or consent of instructor.

IMEN 5305 Graduate Research Project **3 SCH (3)**

Designed for project option students and requires completion of research project. Prerequisite: departmental approval. May be repeated for a maximum of 6 semester hours.

IMEN 5306 Thesis **3 SCH (3)**

Designed for thesis option students. The course requires completion of thesis research. Prerequisite: departmental approval. May be repeated for maximum of 6 semester hours.

IMEN 5315 Constrnt Mgmt and Mistake Prf **3 SCH (3-0)**

An examination of constraint management principles, strategies and concept as they relate to industrial settings. Also includes an exploration of the tools and techniques that can be used to: (a) measure production performance, (b) overcome core production problems and (c) integrate solutions into business planning and decision making.

IMEN 5320 Spec Tops in Industrial Mgmt **1-3 SCH (1-3)**

Courses will concentrate on themes not present in the current IMEN curriculum. May be repeated ro a maximum of 6 semester hours when topic changes.

IMEN 5330 Six Sigma Qual and Improvmnt **3 SCH (3-1)**

An examination of the various methods and approaches used to achieve, sustain and improve the quality of a product or service. Also includes an exploration into the principles and techniques used to evaluate both continuous and attribute data with an emphasis on the enhancement of skills in computer software that are used in quality assurance activities and/or data analysis. Prerequisite: ITEN 4352 or ITEN 4362 or instructor consent. Laboratory fee, \$5.
 Fee: \$5.00

IMEN 5333 Hazardous Materials Management **3 SCH (3-0)**

Managerial techniques for effective handling and control of hazardous materials and fires. Standards, code compliance issues and the role of the industrial risk manager will also be examined. Prerequisite: graduate standing.

IMEN 5335 Industrial Safety and Risk Mgt **3 SCH (3-0)**

An examination of risk assessment and risk management principles, strategies and concept as they relate to industrial settings. Also includes an exploration of the tools and techniques that can be used to: (a) assess levels of risk, (b) communication risk in crisis and noncrisis situations and (c) integrate risk management into business planning and decision making. Industrial safety and health issues will also be addressed. Prerequisite: ITEN 2330 or ITEN 3300 or consent of instructor.

IMEN 5340 Manufacturing System Mgmt **3 SCH (3-0)**

Survey of current trends and approaches to automation and cellular manufacturing. Emphasis will be both on managerial issues and integration of automated cells. Topics include automation, cellular manufacturing, group technology and just-in-time philosophies. Case studies and supplemental articles are used to demonstrate real world issues and applications.

IMEN 5344 Lean Production 3 SCH (3-0)

A study of the philosophy of lean production. Emphasis will be on designing strategies for implementation.

IMEN 5350 Supply Chain Management 3 SCH (3-0)

Supply Chain Management focuses on managing the complexity of synchronizing an entire chain of activities performed by different organizations in order to deliver a product to the final customer. SCM involves the areas of marketing, operations management, logistics, procurement and distribution. Diverse simulation software are used for critical analysis of the business at hand and for managerial and decision making purposes. Prerequisite: graduate standing.

IMEN 5355 Project Management 3 SCH (3-0)

Fundamental of project management with a wide assortment of business applications. The course takes a decision-making, business-oriented approach and explores both technical and managerial challenges in the management of projects. Course provides a strategic perspective, demonstrating means to manage projects at the program and portfolio levels. Prerequisite: graduate standing.

Master of Science (M.S.) in Industrial Management

Master of Science in Industrial Management - Thesis Option I

Code	Title	Semester Credit Hours
Core Requirements		21
IMEN 5301	Industrial Management	
IMEN 5330	Six Sigma Qual and Improvmnt	
IMEN 5335	Industrial Safety and Risk Mgt	
IMEN 5300	Resrch Method & Project Devel	
IMEN 5344	Lean Production	
IMEN 5350	Supply Chain Management	
IMEN 5340	Manufacturing System Mgmt	
In addition to the above, the course below must be taken twice for a total of six (6) semester credit hours		6
IMEN 5306	Thesis	
Elective Courses		3
TOTAL		30
		Credits

Master of Science in Industrial Management - Project Option II

Code	Title	Semester Credit Hours
Core Requirements		21
IMEN 5301	Industrial Management	
IMEN 5330	Six Sigma Qual and Improvmnt	
IMEN 5335	Industrial Safety and Risk Mgt	
IMEN 5300	Resrch Method & Project Devel	
IMEN 5344	Lean Production	
IMEN 5350	Supply Chain Management	
IMEN 5340	Manufacturing System Mgmt	
In addition to the above		3
IMEN 5305	Graduate Research Project	
Elective Courses		12
TOTAL		36
		Credits

Master of Science in Industrial Management - Course Option III

Code	Title	Semester Credit Hours
Core Requirements		21
IMEN 5301	Industrial Management	
IMEN 5330	Six Sigma Qual and Improvmnt	
IMEN 5335	Industrial Safety and Risk Mgt	
IMEN 5300	Resrch Method & Project Devel	
IMEN 5344	Lean Production	
IMEN 5350	Supply Chain Management	
IMEN 5340	Manufacturing System Mgmt	
Elective Courses		15
TOTAL		36
		Credits

Industrial Management Electives

Code	Title	Semester Credit Hours
IEEN 5329	Advanced Eng Economic Analysis	3
IEEN 5335	Principles of Optimization	3
IMEN 5320	Spec Tops in Industrial Mgmt	1-3
IMEN 5333	Hazardous Materials Management	3
IMEN 5315	Constrnt Mgmt and Mistake Prf	3

Industrial Hygiene, Transcribed Certificate

In order to get the certificate, students need to complete three courses (9 credit hours) with a B or better grade including three of the following courses. It is at the discretion of the graduate coordinator to advise students from different engineering majors to take which three courses to earn the industrial hygiene certificate.

Code	Title	Semester Credit Hours
CEEN 5303	Advance Topics in Civil Eng ¹	1-3
EVEN 5303	Advanced Topics in Environmental Engineering ²	1-3
IMEN 5333	Hazardous Materials Management	3
IMEN 5335	Industrial Safety and Risk Mgt	3

¹ Topic must be Occupational Health & Regulations

² Topic must be Air Quality Assessment