

Department of Industrial Management and Technology

Contact Information

Chair: Delia J. Valles-Rosales
Phone: 361-593-2872
Email: delia.valles-rosales@tamuk.edu
Building Name: A.F. Gross Hall
Room Number: 100

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

Program Overview:

Organizations across sectors require professionals who bring both technical skills and strategic leadership to enhance productivity, improve safety, and drive innovation. The **Master of Science in Industrial Management (IMEN)** at **Texas A&M University-Kingsville** is a **30-credit interdisciplinary graduate program** tailored for individuals aspiring to lead in manufacturing, operations, safety management, construction, supply chains, and government agencies.

The curriculum is designed to provide deep knowledge and practical experience in

- Process improvement and manufacturing systems
- Industrial safety and hazardous materials management
- Supply chain and project management

This comprehensive program equips students to address real-world industry challenges and make meaningful contributions in both private and public sector roles. With a flexible learning structure, students can choose between **online and in-person courses**, enabling them to effectively balance their education with career and personal commitments. Whether participating in engaging classroom discussions or studying remotely, the IMEN program empowers students to tailor their learning experience to align with their individual goals and evolving industry demands. It offers a **unique blend of deep academic expertise and hands-on industry experience**, ensuring graduates gain both robust theoretical knowledge and practical, actionable insights.

Students can customize their learning path by selecting six elective courses (equivalent to 18 credits) across key industrial domains including quality management, project management, industrial safety, manufacturing systems, and supply chains. All courses are available online and in-person. Students have the option to **build their own specialization** with the graduate advisor's approval.

As part of the degree program, students are strongly encouraged to pursue a **summer internship and/or a Cooperative Education (Co-Op)** to gain valuable real-world experience. You may also earn academic credit for your internship, up to 6 credits. Your graduate advisor will assist you in selecting the appropriate courses to take while you complete your internship and will guide you through the requirements.

By earning a Master of Science in Industrial Management, you will be prepared to:

- Streamline industrial and manufacturing processes for optimal performance
- Lead initiatives in safety compliance and hazardous materials management
- Optimize supply chain and project execution across industries
- Apply data-driven strategies to improve operational efficiency
- Contribute to innovation in both public and private sector environments

Industrial Management (IMEN)

IMEN 5300 Statistics for Industrial Leaders 3 SCH (3-0)

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 5302 Operations Management 3 SCH (3-0)

This course introduces essential principles in operations management, focusing on the design, optimization, and management of production and service operations. Key topics include process analysis, capacity planning, supply chain logistics, inventory control, and lean operations. Serving as a foundational course for Supply Chain Management and Decision Analytics, students gain quantitative and qualitative tools to address operational challenges and boost efficiency.

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 1-3 SCH (1-3)

For MS in Industrial Management thesis-track students, this course facilitates independent research under faculty supervision. Flexible credit options (1-3) per semester are available to accommodate research needs, with a minimum of 6 credits required. Department approval is needed to enroll.

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 to 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.

Graduate Programs

- Industrial Management, M.S.

Academic Certificates

- Industrial Safety and Decision Analytics, Academic Certificate

Planned Course Offerings

This section provides a comprehensive list of graduate courses offered by the Department of Industrial Management and Technology, along with a two-year schedule indicating when each course is expected to be available. Please note that course offerings and scheduling are subject to change based on faculty availability and student demand. To ensure steady progress toward degree completion, students are strongly encouraged to work closely with their advisor to develop a personalized academic plan.

Industrial Management (IMEN)

Course	Fall 2026	Spring 2027	Fall 2027	Spring 2028
IMEN 5300	X		X	
IMEN 5302		X		X
IMEN 5305	X	X	X	X
IMEN 5306	X	X	X	X
IMEN 5320	X	X	X	X
IMEN 5330		X		X
IMEN 5333 ¹				
IMEN 5335 ¹				
IMEN 5340	X		X	
IMEN 5355		X		X
IMEN 5350		X		X
IMEN 5355	X		X	

¹ This course is offered during the summer term only.

Marketable Skills

Texas A&M University-Kingsville is dedicated to equipping graduate and doctoral students with the advanced marketable skills necessary for professional and academic excellence beyond the university setting. These skills encompass a range of high-level interpersonal, analytical, and applied competencies that are sought after in today's competitive workforce.

Our graduate programs are structured to cultivate these capabilities through rigorous academic inquiry, experiential learning, faculty-mentored research, professional internships, and opportunities for scholarly and community engagement.

Below are the marketable skills cultivated through the department's graduate academic program.

Industrial Management, M.S.

- Understanding of basic managerial concepts
- Understanding of basic technical concepts
- Understanding of basic special concepts
- Industrial management