ENGINEERING MANAGEMENT, MASTER OF SCIENCE (0447)

Program Coordinator
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The Master of Science in Engineering Management (MSEM) offers students Thesis and Non-thesis concentrations.

The Thesis concentration is for students who plan to pursue additional degrees, such as Ph.D. or who have specific work-related projects that need further exploration. Students who choose the thesis concentration will conduct a research project, which will likely involve several semesters of work.

The Non-thesis concentration is designed to be more flexible and is tailored for students who do not want to conduct a research project. The non-thesis concentration is recommended for working professionals who do not have the time and resources to conduct a research project. Students who choose the non-thesis concentration must take three credits of additional electives and required to take a capstone course.

The MSEM develops leaders to support the needs of the modern world-wide industry. The curriculum enhances both career and personal objectives. Graduates of the program are equipped to manage organization resources, lead technological change, and strategically integrate higher level knowledge within their companies.

The MSEM provides a broad-based core of management competency in business functions, along with a solid understanding of engineering technologies and capabilities. Courses build upon existing technical competency while allowing the student to customize their depth of study in specific management technologies that enhance long-term professional career goals.

All courses can be taken online.

Concentrations

- Thesis (EMTH)
- Non-thesis (EMNT)

Program Admission

In addition to the graduate school requirements, the MSEM program requires:

- Bachelor's degree in engineering, engineering technology, business, or related STEM fields[1].
- Submission of GRE, GMAT or equivalent scores. A minimum GRE score of 140 for the verbal reasoning and 140 for the quantitative reasoning are required with a score of 2.5 or higher for analytical writing[2].

Applicants who don't meet the admission criteria may be considered for conditional admission.

[1] Students, who do not have the required background in fundamental concepts in statistics, will be required to take the following course: MFGE 271 Industrial Statistics (course credit does not count towards degree requirement)

[2] Applicants who have earned a B.S. degree in engineering or related STEM fields with a cumulative GPA of 3.0 or higher are exempt from taking the GRE.

Graduate Studies Admission

Please refer to the admission section (http://catalog.wku.edu/graduate/admission/) of this catalog for Graduate Studies admission requirements.

Program Requirements (30-33 hours)

Thesis Concentration (30 hours)

The thesis concentration in the MSEM program requires 30 credits (15 credits in required core courses and 9 credits in elective courses. Students who choose the thesis option are also required to enroll in six credit hours of EGMT 599. Students are required to complete an oral defense of their thesis and complete a comprehensive written exam of their coursework.

Code	Title	Hours
Required Courses		
EGMT 571	Research Methods in Technology Management	3
EGMT 520	Resource Management	3
EGMT 590	Operations Leadership	3
EGMT 655	Project Management	3
EGMT 671	Quality Management	3
EGMT 599	Thesis Research and Writing (6 hours)	6
Electives		
Complete 9 hours from the following courses:		9
EGMT 510	Emerging Technologies	
EGMT 530	Automated Data Collection Systems	
EGMT 535	Workforce Development	
EGMT 540	Theory of Constraints	
EGMT 580	Six Sigma Quality	
EGMT 588	Product Development	
EGMT 594	Lean Systems	
EGMT 630	Legal and Ethical Issues in Technology	
EGMT 650	Supply Chain Management	
Total Hours		**30**

Non-thesis Concentration (33 hours)

The non-thesis concentration in the MSEM program requires 33 credits (15 credits in required core courses and 15 credits in elective courses). Students who choose the non-thesis option are also required to take three hours of EGMT 690 graduate project.

Code	Title	Hours
Required Courses		
EGMT 571	Research Methods in Technology Management	3
EGMT 655	Project Management	3
EGMT 671	Quality Management	3
EGMT 590	Operations Leadership	3
EGMT 520	Resource Management	3
EGMT 690	Graduate Project (Capstone)	3

Electives		
Complete 15 hours of the following courses:		15
EGMT 510	Emerging Technologies	
EGMT 594	Lean Systems	
EGMT 580	Six Sigma Quality	
EGMT 588	Product Development	
EGMT 650	Supply Chain Management	
EGMT 540	Theory of Constraints	
EGMT 535	Workforce Development	
EGMT 630	Legal and Ethical Issues in Technology	
EGMT 530	Automated Data Collection Systems	
Total Hours		**33**