

Engineering Management, M.S.

Degree Offered

- Master of Science, Engineering Management (M.S.)

Nature of the Program

This is an entirely web-based course-work only asynchronous degree program. The program graduates will build upon their prior engineering education and/or professional experience, to strengthen their ability to effectively manage business operations, projects, and teams. They will apply specialized knowledge to address contemporary professional challenges and solve complex operational problems to improve the business processes, with many emerging as the leaders of tomorrow by practicing holistic learning on a continual basis to acquire skills that are necessary to promote innovation, creative solutions, and diversity.

Admissions for 2026-2027

MASTERS ADMISSIONS

To be eligible for admission into the Master of Science in engineering management degree program, a candidate must fulfill the following requirements

- Earned a cumulative GPA of 3.0 or better (out of a possible 4.0). Applicants with a cumulative grade point average of less than 3.0 may be considered for admission if they have at least two years of professional experience.
- Bachelor of Science degree from engineering, physics, chemistry, computer sciences, mathematics, or a similar technical or science program. The applicant must have completed at least two years of calculus or equivalent mathematics in their degree program.
- Official transcripts of all previous college coursework.
- Statement of purpose explaining the role that the engineering management degree would play in their long-term career aspirations.
- Resume highlighting prior educational and/or professional experience.

Major Code: 3004

Curriculum in Masters of Science in Engineering Management

A candidate for the M.S. degree in Engineering Management must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

PROGRAM REQUIREMENTS

This is an online coursework only M.S. degree. All M.S. degree candidates are required to follow a planned program of study. The student's advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degrees and prepare them for their careers.

CURRICULUM REQUIREMENTS

Code	Title	Hours
A minimum cumulative GPA of 3.0 is required in all courses		
A minimum of 60% of courses must be from 500 level or above		
Foundation Courses		18
Select six from the following:		
EMGT 501	Engineering and Systems Management	
EMGT 502	Quality Management Systems	
EMGT 503	Project Management	
EMGT 504	Operations and Supply Chain Engineering	
EMGT 511	Analytics for Decision Making	
EMGT 513	Advanced Engineering Economic Analysis	
EMGT 521	Strategic Engineering Management	
EMGT 522	New Product and Services Development	
EMGT 524	Leadership for Engineering Managers	
Elective Courses		12
Select four from the following:		

EMGT 504	Operations and Supply Chain Engineering	
EMGT 506	Lean Six Sigma	
EMGT 511	Analytics for Decision Making	
EMGT 512	Machine Learning for Business Analytics	
EMGT 522	New Product and Services Development	
EMGT 523	Team Facilitation	
EMGT 524	Leadership for Engineering Managers	
EMGT 689	Industry Project	
Any BIOM, BMEG, CE, CHE, CHEM, CPE, CS, EE, EMGT, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-795 as approved by the student's AEC		
Total Hours		30

Suggested Plan of Study

The typical MSEM degree program that completes degree requirements in one and half years is as follows.

First Year

Fall	Hours	Spring	Hours	Summer	Hours	
Foundation Course		3 Foundation Course		3 Elective Course		3
Foundation Course		3 Foundation Course		3		
Foundation Course		3 Foundation Course		3		
		9		9		3

Second Year

Fall	Hours	
Elective Course	3	
Elective Course	3	
Elective Course	3	
		9

Total credit hours: 30

+ A course cannot be used to fulfill more than one requirement.

Major Learning Outcomes

ENGINEERING MANAGEMENT

Students will

- Build upon their prior engineering education and professional experience, to strengthen their ability to effectively manage teams, projects, and business operations;
- Apply specialized knowledge to address contemporary professional challenges and solve complex operational problems to improve business operations and processes;
- Develop leadership skills that are necessary to promote innovation, creative solutions, and diversity in technology and knowledge-driven settings.

After graduation from the WVU MSEM program, students will be able to be promoted to higher levels of leadership and responsibility within their organization, pursue further higher education opportunities, or launch a new venture as an entrepreneur.