



Master's Degree in Engineering Management

Available Online

In response to the growing demand for qualified professionals in Massachusetts and across the nation, UMass Lowell has launched an online Master of Science Degree in Engineering Management. Graduates of the program will have enhanced leadership skills to work effectively in a variety of positions in engineering systems, program management, quality, operations and supply management, as well as in consulting services and facilities management.

This 12-course graduate degree program is available entirely online and offers students an opportunity to select concentration electives in several different areas such as Design and Manufacturing, Engineering Services / Infrastructure Management, and Operations and Supply Management. UMass Lowell is a national leader in online education and one of the fastest rising universities in the nation in the *U.S. News & World Report* rankings. As a nonprofit public institution, UMass Lowell offers one of the most affordable online tuitions available.

Curriculum Outline

12 courses / 31 Credits

REQUIRED COURSES

MECH.5760	Engineering Project Management (3cr)
POMS.6220	Decision Analytics (3cr)
	QR CHEN.5480 Engineering Process Analytics (3cr)
ACCT.5010	Financial Accounting (2cr)
FINA.5010	Business Financial Analysis* (2cr)
MKTG.5010	Marketing Fundamentals (2cr)
POMS.5010	Operations Fundamentals (2cr)
MGMT.5010	Organizational Behavior (2cr)

CONCENTRATIONS

Select 3 courses from one of the concentration areas below. See reverse page for available courses in each concentration.


- Design and Manufacturing Concentration
- Engineering Services / Infrastructure Management Concentration
- Operations and Supply Management Concentration

PROFESSIONAL PRACTICE ELECTIVES

Take any 2 additional courses from any one of the Engineering Management concentrations.

For more information, visit <https://gps.uml.edu>.

**ACCT.5010 is a prerequisite for FINA.5010.*



Technical professionals and engineers can expand their management skills and advance their careers through the study of business principles and practices. The program also prepares students who hold non-engineering or business undergraduate degrees by deepening their technical expertise with a specially selected list of engineering courses.

Earn Your Master's Degree in Engineering Management

In addition to the 7 Required Courses and 2 Professional Practice Electives outlined on the reverse side, choose one of the following three concentrations (9 credits minimum required):

Design and Manufacturing Concentration

Choose 3 Courses

Reliability Analysis (3cr - CIVE.5210)
OR **Design for Reliability Engineering**
(3cr - MECH.5740)

Applied Finite Element Analysis
(3cr - MECH.5120)

Cooling of Electronic Equipment
(3cr - MECH.5490)

MEMS and Microsystems
(3cr - MECH.5530)

Quality Engineering
(3cr - MECH.5710)

Industrial Design of Experiment
(3cr - MECH.5750)

Robotics
(3cr - MECH.5790)

Lean Plastics Manufacturing
(3cr - PLAS.5150)

Plastics Product Design
(3cr - PLAS.5180)

Business Law for Engineers
(3cr - PLAS.5370) *OR* **Survey of Intellectual Property** (3cr - PLAS.5900)

Medical Device Design I
(3cr - PLAS.5530)

Structural Product Design
(3cr - PLAS.6180)

Engineering Services / Infrastructure Management Concentration

Choose 3 Courses

Inspection and Monitoring of Civil Infrastructure
(3cr - CIVE.5110)

Urban Transportation Planning
(3cr - CIVE.5400)

Transportation Economics and Project Evaluation
(3cr - CIVE.5440)

Reliability Analysis
(3cr - CIVE.5210)

GIS Applications in Civil & Environmental Engineering
(3cr - CIVE.5760)

Operations and Supply Management Concentration

Choose 3 Courses

Lean Plastics Manufacturing
(3cr - PLAS.5150)

Plastics Manufacturing Systems Engineering
(3cr - PLAS.6060)

Work Environment Policy and Practice
(3cr - PUBH.5510)

Managing Organizational Change
(3cr - MGMT.6010)

Managerial Leadership
(3cr - MGMT.6100)

International Business
(3cr - MGMT.6150)

Operations Management
(3cr - POMS.6010)

Global Supply Chain Management
(3cr - POMS.6020)

Statistics for Predictive Analytics
(3cr - POMS.6120)

Analytical Decision Making Tools
(3cr - POMS.6240)

Admissions Requirements

- A BS degree in any engineering or science discipline, or in Industrial Management or Operations Research with a GPA of at least 3.0. Students with industrial or management experience and a bachelor's degree in another area can be admitted on a case-by-case basis.
- Graduate Admissions application and application fee.
- Graduate Record Examination (GRE) score, minimum to be determined by the MSEM admission committee. The GRE may be waived based on certain criteria. Please see the website for details.
- Three letters of recommendation.
- Statement of Purpose.
- For international students: TOEFL of 79 or greater or IELTS of 6.5 or greater.

Apply to the Program

You can apply online at www.uml.edu/grad.

Register for a Course

You do NOT have to be enrolled in the program to take a course. Try a course before you apply.

New Students: Complete the "Non-Degree Course Registration Form" online at gps.uml.edu.

Returning Students: Register using SIS self-service.

Contact Us

UMass Lowell Advising Center

Phone: 800-480-3190

Email: Continuing_Education@uml.edu

For more information, please contact Professor Sammy Shina at Sammy_Shina@uml.edu or 978-934-2590.

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