



Duluth Campus

Engineering Management M.S.E.M.

UMD Mechanical/Industrial Engineering

Swenson College of Science and Engineering

Link to a [list of faculty](#) for this program.

- **Students will no longer be accepted into this program after Fall 2018. Program requirements below are for current students only.**
- **The MSEM program is being discontinued and is not longer accepting applications for new students.**

Contact Information:

MSEM Director of Graduate Studies, University of Minnesota Duluth, 105 Voss-Kovach Hall, 1305 Ordean Court, Duluth, MN 55812
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Email: msem@d.umn.edu

Website: <http://www.d.umn.edu/mie/programs/graduate/msem/>

- Program Type: Master's
- Requirements for this program are current for Fall 2022
- Length of program in credits: 30 to 31
- This program does not require summer semesters for timely completion.
- Delivered to remote sites in Virginia, Hibbing, and Grand Rapids (MN).
- Degree: Master of Science in Engineering Management

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

The master of science in engineering management (MSEM) provides technical professionals with the tools and skills to manage technical organizations and resources to promote economic growth, competitiveness, ethical decision-making, and environmental responsibility and sustainability. The program is designed to help advance the career path of engineers and address the urgent needs of engineering managers to effectively manage people, projects, technology, and information of varying size and complexity. It also prepares those who want to continue their studies in the field of engineering management in other academic institutions or research based organization. To meet the needs of working professions, courses are offered in the evening and are available for remote sites by interactive television (ITV) or online sessions. Full-time enrollment is possible and the course structure allows for unique research opportunities.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)
- partially online (between 50% to 80% of instruction is online)

Prerequisites for Admission

The preferred undergraduate GPA for admittance to the program is 3.00.

Applicants should have an undergraduate degree in engineering, or another technical major and a substantial background in engineering.

Other requirements to be completed before admission:

Applicants must provide two letters of recommendation concerning their academic ability and readiness for graduate education.

International applicants must submit score(s) from one of the following tests:

- TOEFL
 - Internet Based - Total Score: 79
 - Paper Based - Total Score: 550
- IELTS
 - Total Score: 6.5
- MELAB
 - Final score: 80

Key to [test abbreviations](#)(TOEFL, IELTS, MELAB).

For an online application or for more information about graduate education admissions, see the [General Information](#) section of the

catalog website.

Program Requirements

Plan A: Plan A requires 18 to 21 major credits, 0 to 3 credits outside the major, and 10 thesis credits. The final exam is oral.

Plan B: Plan B requires 21 to 30 major credits and 0 to 9 credits outside the major. The final exam is written and oral. A capstone project is required.

Capstone Project: The Plan B project is a capstone project in which each student should utilize their acquired engineering management skills and to demonstrate their mastery of engineering management concepts by completing a well-defined project on time and documenting the project with a formal paper and an oral presentation.

This program may be completed with a minor.

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

A minimum GPA of 3.00 is required for students to remain in good standing.

At least 1 semesters must be completed before filing a Degree Program Form.

The master's degree is offered under two plans. Plan A involves writing a thesis and Plan B involves additional course work and a project in lieu of the thesis. Electives outside of engineering management are determined in consultation with the director of Graduate Studies

Plan A students must complete at least 31 credits, including 12 credits in the major core sequence, 9 credits of electives (at least 6 in engineering management) and 10 thesis credits. The final exam is oral. Individual course plans are designed to best serve the interests of the student. The director of Graduate Studies must approve all course plans.

Plan B students must complete at least 30 credits, including the 12-credit major core sequence, 15 credits of electives (at least 9 in engineering management) and a 3-credit capstone project course. The capstone project, in which each student should utilize their acquired engineering management skills and demonstrate their mastery of engineering management concepts by completing a well-defined project on time, requires a formal report and oral presentation. Individual course plans are designed to best serve the interests of the student. The director of Graduate Studies must approve all course plans.

Students upon the advice and approval of the director of Graduate Studies, may use a maximum of 6 credits of 4xxx courses in related fields as appropriate for both Plan A and Plan B.

Core Requirements (12 cr)

EMGT 5110 - Management of Engineers and Technology (3.0 cr)

EMGT 5120 *{Inactive}* (3.0 cr)

EMGT 5130 *{Inactive}* (3.0 cr)

EMGT 5160 - Quality Management (3.0 cr)

Plan A or Plan B

Plan A

Thesis

Take for 10 credits.

EMGT 8777 - Thesis Credits: Master's (1.0 - 18.0 cr)

Electives

In order to reach the 31 credit minimum required credits; no more than 3 credits may be outside of EMGT courses.

Take 6 - 9 credit(s) from the following:

- EMGT 5xxx
- EMGT 8xxx

or Plan B

Capstone

Take for 3 credits.

EMGT 8310 - Project Methodology and Practice (3.0 cr)

Electives

In order to reach the 30 credit minimum required credits; no more than 3 credits may be outside of EMGT courses.

Take 9 - 15 credit(s) from the following:

- EMGT 4xxx
- EMGT 8xxx