Twin Cities Campus

Software Engineering M.S.S.E.

Computer Science and Engineering Administration

College of Science and Engineering

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

Contact Information:
MSSE Program, Department of Computer Science and Engineering, College of Science and Engineering, 4-192 Keller Hall, 200 Union Street S.E., Minneapolis, MN 55455 (612-625-1381; msse@umn.edu)
Email: msse@cs.umn.edu
Website: http://www.msse.umn.edu

- Program Type: Master's
- Requirements for this program are current for Fall 2018
- Length of program in credits: 30
- This program does not require summer semesters for timely completion.
- Degree: Master of Science in Software Engineering

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 Software Engineering (MSSE) program provides a thorough understanding of the fundamental issues related to software development and the software development process. The MSSE curriculum provides a solid grounding in theoretical methods, principles, and tools, and an examination of fundamental software development issues and processes. These concepts are explored using realistic and relevant case examples and projects to ensure that the theory works in practice. The MSSE program is an interdisciplinary program administered by the College of Science and Engineering's Department of Computer Science and Engineering.

The program is offered in a format designed for full-time working professionals. Students take courses one day per week (alternating Fridays and Saturdays) and move through the curriculum as a cohort, taking all classes together for four semesters.

Program Delivery

This program is available:
- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

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

Prospective students should have an undergraduate degree in computer science or a closely related field.

Other requirements to be completed before admission:
Students with degrees in other fields may be considered for admission based on relevant work experience.

Prospective applicants must have a minimum of one year of professional experience working in the software industry.

Because the MSSE program is designed for full-time working professionals, international applicants typically hold an H-1B visa.

Special Application Requirements:
The early application deadline is March 31. The final deadline is July 1. Applications are accepted for fall semester only. Additional information is available at http://www.msse.umn.edu/how-to-apply

International applicants must submit score(s) from one of the following tests:
- TOEFL
  - Internet Based - Total Score: 79
  - Internet Based - Writing Score: 21
  - Internet Based - Reading Score: 19
  - 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 C: Plan C requires 30 major credits and up to null credits outside the major.The is no final exam.

This program may not be completed with a minor.

Use of 4xxx courses towards program requirements is not permitted.

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

The MSSE requires 30 credits. The curriculum is fixed for the first three semesters. The fourth semester offers electives, including an optional independent project. Students take eight core courses, two industrial seminar courses, and 2 elective courses. The project requirement can be met by a combination of class projects or by an independent project elective.

Core Courses
 SENG 5115 - Graphical User Interface Design, Evaluation, and Implementation (2.0 cr)
 SENG 5707 - The Principles of Database Systems (3.0 cr)
 SENG 5801 - Software Engineering I: Overview, Requirements, and Modeling (3.0 cr)
 SENG 5802 - Software Engineering II: Software Design (3.0 cr)
 SENG 5811 - Software Testing and Verification (3.0 cr)
 SENG 5851 - Software Project Management (3.0 cr)
 SENG 5852 - Quality Assurance and Process Improvement (2.0 cr)
 SENG 5861 - Introduction to Software Architecture (3.0 cr)

Industrial Seminar
 Take twice for a total of 2 credits
 SENG 5899 - Software Engineering Seminar (1.0 cr)

Electives
 Choose a minimum of 6 credits in SENG electives in consultation with adviser