Software Engineering is a creative discipline, combining art and science, requiring leadership and pragmatism. Our focus is not to train, but to educate. We help students build a strong foundation of theory and best-practice knowledge, which they can apply in a variety of technical and business environments today and in the future.

AN ADVANCED DEGREE IN TWO YEARS
Our Master of Science in Software Engineering (MSSE) program is designed for working professionals. The curriculum builds on the experience of participants. We keep class sizes small and most homework is team-oriented. Our students often learn as much from each other as from the faculty and course materials. MSSE students find that they learn something each week that can be applied immediately in their professional practice.

STUDY WITH THE BEST
Why an SE degree from the University of Minnesota? The University of Minnesota is the region’s premier research institution and the Department of Computer Science and Engineering (CS&E), under which the University of Minnesota Software Engineering Center (UMSEC) and the MSSE program is housed, is the only Ph.D. granting computer science department in the state. The CS&E department enjoys an international reputation for its excellence in research. You will study with top researchers and highly-experienced professionals who have proven themselves as excellent teachers. You will have access to cutting-edge research and the people who are engaged in it. If you are so inclined, you may join a research group and make your own contributions. You will find a wealth of resources and ideas that will enhance your educational experience and your own professional practice.

MSSE PROGRAM FORMAT
The MSSE program is a two-year, full-time program that meets on alternating Fridays and Saturdays from 8:00 a.m. until 5:00 p.m. with a break for lunch. Students commonly negotiate about 8 Fridays off per semester with their employers. The average time spent on the program is between 16 and 24 hours per week, including time spent in class. There is a summer break from June until September between the first and second years of the program.

CONTINUED SUPPORT
Learning does not stop at the end of the semester. Our program boasts a lifelong professional and personal network.

CURRICULUM
The MSSE curriculum is fixed for the first three semesters. The fourth semester includes electives, one of which is an optional, independent project. A total of 30 semester credits and satisfactory performance on at least three class projects is required for graduation.

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Software Engineering 1</td>
<td>Software Design</td>
<td>Software Architecture</td>
<td>User Interface Design &amp; Eval.</td>
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<tr>
<td>Data Modeling</td>
<td>Software Process &amp; QA</td>
<td>Project Management</td>
<td>Elective I</td>
</tr>
<tr>
<td>Industrial Seminars</td>
<td>Software Test &amp; Verif.</td>
<td>Industrial Seminars</td>
<td>Elective II</td>
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<tr>
<td>7 credits</td>
<td>8 credits</td>
<td>7 credits</td>
<td>8–9 credits</td>
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</tbody>
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For more information:
msse.umn.edu   |   (612) 625-1381   |   msse@umn.edu

SOFTWARE ENGINEERING CENTER
UNIVERSITY OF MINNESOTA
SEMINARS
EXAMPLES:
• Legal & Intellectual Property Issues for Software Engineers
• Software Re-Engineering and Maintenance
• Configuration Management
• Internet Commerce
• Data Warehousing & Data Mining
• Software Engineering Ethics
• Extensible Programming Languages
• Robotics & Real-Time Systems
• Software Engineering in a Start-Up Environment
• Peer-to-peer networking and botnets

ELECTIVES
Choices vary year-to-year based on faculty availability and a class vote.

EXAMPLES:
• Real-Time & Embedded Systems
• Big Data Strategies & Analytics
• Enterprise Application Development
• Web Application Development
• Dynamic Languages
• Independent Project
• Data Network Security
• Mobile Application Development

PROGRAM COST COMPARISON

<table>
<thead>
<tr>
<th>Program</th>
<th>Length</th>
<th>First Year Cost</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>MSSE</td>
<td>2 years</td>
<td>$20,800.00</td>
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<td>UMN CS&amp;E Master’s</td>
<td>5 years</td>
<td>$12,155.66</td>
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* Based on AY 2017-2018 data
* St. Thomas requires 14 credits; UMN MS requires 31 credits; MSSE requires 30 credits
* Tuition increases: 3.49% St Thomas, 2.8% UMN TC

FINANCIAL AID
Financial aid is available for the MSSE program. For more information, see the financial aid website: admissions.tc.umn.edu/CostsAid/finaid.html or contact Jim Parker at j-park1@umn.edu or 612-626-0750.

ENRANCE REQUIREMENTS
The MSSE program is selective, and applicants are expected to have professional work experience prior to joining the program. Applicants are normally required to be currently employed with at least one year of work experience, a BS or BA in Computer Science or a related field, and at least a 3.0 grade point average. Other educational backgrounds are considered if professional experience in the field is substantial. Graduate Record Examination (GRE) results are not required.

INTERNATIONAL STUDENTS
International students should meet the standard entrance requirements and also have a Green Card or Work Visa, official transcripts in English, and a Minimum Internet Based TOEFL score of 79 or above (with section scores of 21 on writing and 19 on reading), a minimum MELAB score of 80, or 6.5 overall IELTS with 6.5 section scores for both reading and writing. It is recommended that international students apply by May 15th to allow extra time to ensure that visas can be confirmed and all application materials can be obtained from non-US institutions.

PROGRAM LENGTH

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* Figures compiled from publicly available sources
* Comp fee for Fall 2018 not yet determined

For more information contact:
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APPLICATION PROCEDURE
• Early application deadline - March 31, 2018
• Final application deadline - July 1, 2018

onestop.umn.edu/finances/cost-attendance

Software Engineering Center
University of Minnesota