Duluth Campus

Civil Engineering M.S.

UMD-Civil Engineering, Dept of

Swenson College of Science and Engineering

Link to a list of faculty for this program.

Contact Information:
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Website: http://www.d.umn.edu/civileng/grad/index.html

- Program Type: Master's
- Requirements for this program are current for Fall 2020
- Length of program in credits: 30
- This program does not require summer semesters for timely completion.
- Degree: Master of Science

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.

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The Civil Engineering Department offers graduate degrees in civil engineering. The master's of science (MS) in civil engineering is intended for students pursuing a research emphasis and seeking in-depth knowledge in an area within civil engineering. Undergraduate students who are admitted into the Integrated Undergraduate/Graduate (IUG) Program can apply up to 9 credits of approved coursework to both their undergraduate (BSCE) and graduate (MSCE) degrees. Students must be admitted to the IUG program prior to taking courses in order to count toward graduate credits.

IUG application deadline:
December 15th for Spring admission
July 15th for Fall admission

IUG application requirements:
Letters of recommendation from two Civil Engineering faculty members
Minimum GPA of 3.35
Students must apply to IUG program at least two semesters before completing BSCE degree
Admission preference will be given to students committed to completing a thesis-based (Plan A) MS degree

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.

Applicants must have earned a BS degree in engineering (e.g., civil, mechanical, chemical, environmental) or the sciences (e.g., chemistry, physics, mathematics).

Other requirements to be completed before admission:
For students from disciplines other than civil engineering, some remedial coursework may be needed. Students requiring a substantial amount of remedial coursework (e.g., more than 3 courses) may be recommended to complete a few courses prior to entry into the program, but for most students the additional coursework could be completed while a graduate student in the program. Students should consult with the CE director of graduate studies or a faculty member in their area of interest for a review and assessment of their academic background and coursework needs.

Special Application Requirements:
Applicants should submit the following supplemental materials with their application:
-Applicant Statement Number 1 (Educational and Career Goals, limit one page)
-Applicant Statement Number 2 (Statement of Purpose, limit one page)
-Program form for Civil Engineering

-CV or resume (list technical publications and conference presentations)
-Unofficial transcripts

-Two letters of recommendation (waived for current UMD CE undergraduate students, unless applying to the IUG program)
-Letters should be requested from persons familiar with the student's performance in an academic or non-academic (i.e. work) setting and who can comment on potential for success in graduate school. Preference is for recommenders from academia.
-Recommenders should address the following points: (i) the capacity in which they know the student--as a teacher, research adviser, work supervisor, etc., and for how long; (ii) academic (or work) record and accomplishments; and (iii) their assessment of the student's ability to succeed in graduate-level coursework and research.
-Letters of recommendation should be submitted online through the existing application. When recommenders use the online process, there is an optional student rating form. It is important that each recommender submit a narrative letter, regardless of whether or not they use the optional rating form.
-While online recommendations are preferred, paper copies are acceptable. Paper copies should be directly mailed to the department in sealed envelopes.

Applications are due December 15 for consideration for the following fall semester and March 31 for consideration for the following spring semester. Domestic applicants applying for a part-time study who do not require financial support are able to apply as late as March 15 for fall and September 15 for spring semester respectively, but are still encouraged to apply by the above mentioned CE deadlines.

Applicants must submit their test score(s) from the following:
- GRE

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
- IELTS
  - Total Score: 6.5
- MELAB
  - Final score: 80

Key to test abbreviations(GRE, 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 6 to 20 major credits, 0 to 14 credits outside the major, and 10 thesis credits.The final exam is oral.

Plan B: Plan B requires 12 to 30 major credits and 0 to 18 credits outside the major.The final exam is oral. A capstone project is required.
Capstone Project: Courses and a project are arranged by the student and department adviser.

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 3.0 is required for students to remain in good standing.

The MS Plan A is intended for students pursuing a research emphasis and seeking in-depth knowledge in an area within civil engineering. The MS requires completion of an original body of work resulting from research conducted by the student under the supervision of an advisory committee of graduate faculty members. The MS requires 20 credits of coursework and 10 thesis credits (approximately 375 hours of work including writing of the report), usually completed within two years.

The M.S. Plan B is designed to provide additional training in civil engineering to prepare students for a higher level of engineering design work. The M.S. Plan B requires 24 credits of coursework and 6 project credits (approximately 225 hours of work, including writing of the report), usually completed within one to two years.

Successful completion of CE 8094 is required prior to graduation.

Plan A or Plan B

Plan A

Course Work

Student may use up to 6 approved 4xxx credits towards program requirements. CE 4126 and CE 4255 cannot be counted toward an MS degree.

Take 6 or more credit(s) from the following:

- CE 4xxx
- CE 5xxx
- CE 8xxx

Graduate Seminar

CE 8020 - Graduate Seminar (1.0 cr)

Thesis credits

Students must take CE 8777 for a minimum of 10 credits.

CE 8777 - Thesis Credits: Master's (1.0 - 12.0 cr)

or **Plan B**

Course Work

Student may use up to 6 approved 4xxx credits towards program requirements. CE 4126 and CE 4255 cannot be counted toward an MS degree.

Take 6 or more credit(s) from the following:

- CE 4xxx
- CE 5xxx
- CE 8xxx

Graduate Seminar

CE 8020 - Graduate Seminar (1.0 cr)

Project credits (6 cr)

Students must take CE 8094 for a minimum of 6 credits.

CE 8094 - Civil Engineering Master's Project (1.0 - 6.0 cr)