

Duluth Campus

Earth Sciences M.S.

D Earth & Environmental Sci

Swenson College of Science and Engineering

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

Contact Information:

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- Program Type: Master's
- Requirements for this program are current for Spring 2021
- Length of program in credits: 31
- 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.

The master of science program in Earth Sciences includes areas of environmental geoscience, economic geology, geophysics, glacial geology and geomorphology, hydrology, hydrogeology, igneous and metamorphic petrology, isotope and aqueous geochemistry, limnogeology, paleoclimatology, planetary geology, sedimentology and stratigraphy, surface processes, and structure-tectonics. Several of these areas are strengthened by collaboration with the Large Lakes Observatory and the Natural Resources Research Institute.

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.

A four-year BS or BA degree in geology, Earth science, or a related field in engineering, basic science, or mathematics is required.

Other requirements to be completed before admission:

Most candidates will have completed a bachelor's degree in Earth science, environmental science, geology, geophysics, or a related field. However, students with degrees in fields such as chemistry, physics, or biology are encouraged to apply. At least one year of study in calculus, chemistry, and physics is required. Field camp and/or undergraduate research experience is recommended.

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](#)(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 15 to 21 major credits, 0 to 6 credits outside the major, and 10 thesis credits. The final exam is oral.



Plan B: Plan B requires 25 to 31 major credits and 0 to 6 credits outside the major. The final exam is written. A capstone project is required.

Capstone Project: The capstone project is completed in consultation with the advisor.

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 semester must be completed before filing a Degree Program Form.

Required Course (1 credit)

Take the following course:

[EES 8200](#) - Professional Issues in Earth and Environmental Science (1.0 cr)

Major Electives (14 to 24 credits)

Plan A students select at least 14 credits, and Plan B students select at least 24 credits from the following in consultation with the advisor:

ESCI 4xxx
ESCI 5xxx
ESCI 8xxx
GEOL 4xxx
GEOL 5xxx
GEOL 8xxx

Additional Coursework (0 to 6 credits)

Select additional credits, as needed to meet minimum course credit requirements, in consultation with the advisor.

Plan Options

Plan A

Thesis Credits

Plan A students must take 10 masters thesis credits.

[EES 8777](#) - Thesis Credit: Master's (1.0 - 10.0 cr)