Masters of Science: Geotechnical Engineering Focus
University of New Hampshire, Department of Civil and Environmental Engineering

Prerequisites: Accredited BSCE or equivalent bachelor’s degree that includes the following courses: Calculus I and II, Differential Equations, Statics, Strength of Materials, Materials Engineering, Fluid Mechanics, Soil Mechanics, Foundation Design, Geology and Structural Analysis, or permission by the faculty advisor.

All Masters of Science degree students must complete a minimum of 31 total credits that includes a minimum of 24 credit hours of regular coursework, 6 thesis credits and a one-credit Seminar Course. UNH bachelor’s degree students admitted to the Accelerated Master’s program may register for a maximum of 8 credits of graduate-level courses prior to completing their bachelor's degree. Such courses may upon recommendation of the department and approval of the Graduate School count toward both a bachelor's and master's degree.

A formal oral presentation/thesis defense is required. All M.S. degree students are eligible for teaching or research assistantships and are required to register for Master's Student Seminar (CEE 897) for one semester. Students are required to make two presentations during their programs of study. For graduation, a grade of B- or better in each course, an overall B average (3.00 GPA), and a successful thesis defense must be achieved. Students are required to take a minimum of 5 geotechnical graduate electives. Students who have not taken Foundation Design as part of their undergrad degree will need to take CEE 878 and five other geotechnical electives. The remaining courses must be approved by the faculty advisor.

Thesis Committee: A committee of at least three individuals will be selected by the faculty advisor to evaluate the student’s thesis. The members of this committee include the faculty advisor, and members from the Civil and Environmental Engineering Department, UNH CEPS, faculty members at other academic institutions, or professionals. The Graduate Coordinator must approve the thesis committee.

Thesis: Each student must complete a Master Thesis. The research topic will be determined by the faculty advisor. The thesis defense includes both written and oral components. The student must prepare a draft of the thesis based on the research performed as a Masters Student. The draft should be submitted to the committee for review after receiving the approval from the faculty advisor. Sufficient time should be provided for the committee to read and review the thesis. After consulting with the committee, the student must schedule a defense date to present the research outcome and answer the questions by the committee. The committee will evaluate the student’s performance in research and oral presentation and, approve the student for receiving the Masters of Science degree. The student is responsible to address the comments and feedback given by the committee in order to receive the final thesis approval signatures.
CURRICULUM WORKSHEET

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COURSE LISTS *

**Geotechnical Electives**
- CEE 865-Engineering Behavior of Soils
- CEE 866-Geotechnical Earthquake Engineering
- CEE 867-Geological Engineering
- CEE 868-Geo-Environmental Engineering
- CEE 879-Foundation Design II
- CEE 966-Geotechnical Modeling
- CEE 967-In Situ Geotechnical Testing
- CEE 968-Soil-Structure Interaction

**Suggested Electives**
- ME 886-Finite Element Analysis
- ESCI 810-Ground Water Hydrology

*Other courses in CEPS are allowed with written approval by the advisor.