

UNIVERSITY OF ILLINOIS  
AT URBANA - CHAMPAIGN

Department of Civil and Environmental Engineering

2230d Newmark Civil Engineering Laboratory, MC-250  
205 North Mathews Avenue  
Urbana, IL 61801-2352



***Geotechnical Faculty  
Options for 11-month M.S. Program in Geotechnical Engineering***

The listings below outline courses that the Geotechnical Faculty deem adequate for students interested in completing their M.S. degree in only 11 months (without thesis) rather than the standard 1.5 to 2 year M.S. degree (with or without thesis). The courses below will *usually* be offered in the semesters shown, although changes may occur. The M.S. also may be completed in 9 months if 5 courses are taken in one semester; however, such a course load would be demanding and sufficient courses may not be available. As with all degree program decisions, we suggest that you coordinate with your program advisor to confirm your course selection. More importantly, the Geotechnical Faculty emphasize that although it is possible to complete the M.S. degree requirements in 11 months, it is our experience that students who complete their M.S. degree in 1.5 to 2 years are more strongly positioned to enter professional practice because these students have had the opportunity to complete most of the geotechnical courses offered at Illinois.

A key to all of the courses listed below is provided at the end of this document and can be found at [cee.illinois.edu](http://cee.illinois.edu). The following courses apply to students who have *not* completed CEE 483 and CEE 484 at Illinois prior to starting their M.S. program, and who are enrolled to begin in the Fall semester.

**Fall**

CEE 483  
CEE 585  
\*CEE 586<sup>†</sup> or CEE 598GT<sup>§</sup>  
\*\*Geol 401, Geol 411, or Geol 415

**Spring**

CEE 484  
CEE 580  
\*CEE 588 or CEE 589  
\*\*CEE 463, Geol 440, or Geol 470

**Summer**

\*\*CEE 422, Geol 415, or Geol 417

The courses listed below apply to students who have *not* completed CEE 483 and CEE 484 prior to starting their M.S. program, and who are enrolled to begin in the Spring semester.

**Spring**

CEE 483  
CEE 484  
CEE 580  
\*\*CEE 463, Geol 440, Geol 470

**Summer**

\*\*CEE 422, Geol 415, or Geol 417

**Fall**

CEE 581  
CEE 585  
\*CEE 586<sup>†</sup> or CEE 598GT<sup>§</sup>  
\*\*Geol 401, Geol 411, or Geol 415

Students who *have* completed CEE 483 and CEE 484 prior to starting their M.S. program have more flexibility in completing an 11-month M.S. degree. The listings below identify the geotechnical courses that are available to these students, in addition to other Geology and other Civil & Environmental Engineering courses noted above. Students should select four courses in the Fall, four courses in the Spring, and one course in the Summer semester.

**Fall**

CEE 581  
CEE 582<sup>†</sup>  
CEE 585  
CEE 586<sup>†</sup>  
CEE 598GT<sup>§</sup>  
\*\*Geol 401, Geol 411, or Geol 415

**Spring**

CEE 580  
CEE 583<sup>§</sup>  
CEE 588<sup>§</sup>  
CEE 589<sup>†</sup>  
CEE 598TSR<sup>§</sup>  
\*\*CEE 463, Geol 440, or Geol 470

**Summer**

\*\*CEE 422, Geol 415, or Geol 417

\* Courses offered every other year. Select the course that is offered that year.

\*\* Select one of the three options. Other suitable courses may be substituted.

† Course offered in even numbered years.

§ Course offered in odd numbered years.

In some cases, other suitable courses may be substituted for those listed above, pending course availability. Your program advisor can help you select substitute courses from CEE, Geology, or other departments. All courses shown above are 4 credits each. A total of 36 credits are required for the M.S. degree with no thesis. A minimum of three 500-level courses (12 credits) must be taken in total, of which a minimum of two of the 500-level courses (8 credits) must be geotechnical courses.

For questions, please contact:

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or your Program Advisor.

**Geotechnical Courses Listed Above**

CEE 483: Soil mechanics and behavior  
CEE 484: Applied soil mechanics  
CEE 580: Excavation and support systems  
CEE 581: Earth dams  
CEE 582: Advanced consolidation of soils  
CEE 583: Advanced shear strength of soils  
CEE 585: Deep foundations  
CEE 586: Rock mechanics and behavior  
CEE 588: Geotechnical earthquake engineering  
CEE 589: Computational geomechanics  
CEE 598GT: In situ testing and field instrumentation  
CEE 598TSR: Tunneling in soil and rock

**Non-geotechnical Courses Listed Above**

CEE 422: Construction cost analysis  
CEE 463: Reinforced concrete, II  
Geol 401: Geomorphology  
Geol 411: Structural geology and tectonics  
Geol 415: Field geology  
Geol 417: Geologic field methods, western U.S.  
Geol 440: Sedimentology and stratigraphy  
Geol 470: Introduction to hydrogeology

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