

# Civil & Environmental Engineering

## Geotechnical Engineering

### Master's Degree Detailed Requirements (2015)

#### Research/Thesis Option

#### General Degree Requirements

- 32 credits of course work
- 1 credit of CEE 500 Departmental Seminar
- 9 credits minimum of CEE 700, Master's Thesis

**42 Credits Required**

#### Core Geotechnical Program:

- CEE 500 Departmental Seminar, 1 CR
- CEE 527 Advanced Geotechnical Laboratory, 4 CR (AUT)
- CEE 599 Structural Mechanics, 4 CR (AUT)
- CEE 599 Advance Soil Mechanics, 4 CR (AUT)
- CEE 502 Structural Dynamics, 3 CR (WIN)
- CEE 599 Computational Geomechanics, 4 CR (WIN)
- CEE 599 Advanced Foundation Engineering, 4 CR (WIN)
- CEE 498 Geohazards, 3CR, (SPR)
- CEE 599 Geotechnical Earthquake Engineering, 4 CR (SPR)
- CEE 599 Geological Engineering & Rock Mechanics, 4 CR (SPR)

*This list of course offerings is subject to change. Please refer to the UW Time schedule as it becomes available for up-to-date information.*

Students may also take classes outside the department, as long as the degree requirements are met, and the course plan is approved. Some other elective courses from the CEE department and outside the department are listed under the "Electives" section.

#### Electives:

- CEE 503 Materials Modeling, 3 CR (SPR)
- AA 540, 541 Finite Element Analysis I, II, 3 CR
- ARCH 574 Design and Construction Law, 3 CR
- AMATH 506 Applied Probability Statistics, 4 CR
- AMATH 581, 582, 583 Scientific Computing, 5 CR
- AMATH 584, 585, 586 Numerical Analysis, 5 CR
- ATSM 552 Objective Analysis
- ESS 512 Seismology
- ESS 522 Geophysical Data Collection and Analysis
- ESS 523 Geophysical Inverse Theory
- STAT 504, 506 Applied Regression, Applied Prob. and Stat
- STAT 512 Statistical Inference
- STAT 520 Spectral Analysis of Time Series

*Check the UW Time Schedule or with offering departments for details regarding courses outside CEE.*