# CEG: Civil Geotechnical Engineering Courses

# Courses

## CEG 3011 Geotechnical Engineering

College of Sci and Engineering, Department of Civil Engineer & Construct Mgt

3 sh (may not be repeated for credit) Prerequisite: EML 3011\*

This course introduces the use of soil as a construction material and analysis techniques for geotechnical applications. Topics include soil formations, mass-volume relationships, soil classification, effective stress, compaction, seepage, soil deformation, state of stress, consolidation, strength, failure, bearing capacity, and more as applied to engineering applications.

#### CEG 3011L Geotechnical Engineering Lab

College of Sci and Engineering, Department of Civil Engineer & Construct Mgt

1 sh (may not be repeated for credit) Prerequisite: CEG 3011\*

This course introduces the laboratory experiments that will be conducted to obtain soil properties for use in geotechnical engineering design. Experiments include grain size distribution and soil classification, Atterberg Limits, compaction, permeability, consolidation, shear strength, unconfined compressive strength and more as applied to engineering applications.

### CEG 4801 Geotechnical Engineering Design

College of Sci and Engineering, Department of Civil Engineer & Construct Mgt

3 sh (may not be repeated for credit) Prerequisite: CEG 3011

This course provides comprehensive coverage of the principles for geotechnical analysis and design of shallow and deep foundation systems. Course topics include geotechnical site characterization, bearing capacity, settlement, group effects, lateral load capacity of the various foundation systems and other topics as applied to engineering applications.

\* This course may be taken prior to or during the same term.