

COURSE SYLLABUS (2 Page)

Course Number: CEGR 3258
Course Name: Geotechnical Laboratory

Credits and Contact Hours: 2

Instructor: Vincent Ogunro

Textbook: *Title:* Soil Properties: Testing, Measurement and Evaluation (6th ed.)
Authors: Liu and Evett
Year: 2008

Catalog Description: Test to determine engineering properties of soils; consistency, permeability, shear strength, and consolidation. Data analysis, presentation, and report writing. One and a half hours of lecture and three hours of laboratory per week.
Most Recently Offered (Day): Spring 2016, Fall 2015, Summer 2015
Most Recently Offered (Evening): Course has not been offered in 3 years

Pre-Requisites/Co-Requisites: CEGR 3278 (Pre- or Corequisite)

Course is: Required (R)

Goals: To introduce the character and behavior of soils through ASTM and AASHTO geotechnical tests. Through hands-on lab work and report preparation, students will gain and display an understanding of soil testing and behavior.

Student Outcomes Addressed:

In this course, students will develop the following Student Outcomes:

- A. an ability to apply knowledge of mathematics, science, and engineering
- B. an ability to design and conduct experiments, as well as to analyze and interpret data
- E. an ability to identify, formulate, and solve engineering problems
- F. an understanding of professional and ethical responsibility
- G. an ability to communicate effectively
- K. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Course Topics:

Moisture content, grain size distribution, specific density, consistency limits (liquid and plastic limits), moisture-density relationships, permeability, consolidation, and shear strength (unconfined compression, direct shear and triaxial tests).