Course Prefix and Number: CIV 225
Credits: 2

Course Title: Soil Mechanics

Course Description: Focuses on soil in its relationship to engineering and construction. Includes soil composition and structure, weight-volume relationships, sampling procedures, classification systems, water in soil, stresses, strains, bearing capacity, settlement and expansion, compaction, stabilization, and introduction to foundations and retaining walls. Prerequisite: MTH 115 or equivalent. Lecture 2 hours per week.

General Course Purpose: Indoctrinates the student to mechanical properties of soils from the standpoint of civil engineering design projects

Course Prerequisites and Co-requisites:
Prerequisite: MTH 115 or equivalent

Course Objectives:
Upon completing the course, the student will be able to
a. Demonstrate a working knowledge of classifying a soil to identify its engineering properties;
b. Demonstrate a general understanding of the fundamentals of geotechnical engineering; and
c. Have a basic understanding of the performance requirements of the soil laboratory or soil field technician.

Major Topics to Be Included:
a. Soil: origin and nature
b. Soil classification
c. Soil index properties
d. Stress analysis and engineering properties
e. Interpretation of soils reports (exploration procedures)
f. Foundation types and application
g. Moisture-density relationship
h. Soil stabilization

Effective Date of Course Content Summary: August, 2008