

Rock Mechanics, Slope Stability and Retaining Structures

CIVILEN 5561

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level) Graduate (5000-8000 level)

Course Components:

Lecture

Lab

Course Description:

Stress-strain properties of soil and rock. Strength of cohesive and non-cohesive materials under a variety of loads. Settlement and stability analyses of soil and rock slopes in for both in-situ and reconstituted materials.

Prerequisites and Co-requisites:

Prereq: 3540, or Grad standing.

Course Goals / Objectives:

• Understand the engineering properties of soil and rock.

Course Topics:

- Soil compaction
- Seepage through intact soil and rock and recompacted soil
- Unconfined compressive strength of soil and rock
- Triaxial testing procedures to measure strength and deformation under different confining stresses
- Consolidation

Designation:

Elective