

Department: Mining Engineering

Division: Mining Exploitation and Rock Mechanics

Level and Major: BSc, Mining Exploitation and Rock Mechanics

Course Title: Principles of Rock Mechanics

Number of Credits: 2

Prerequisite: Petrology+ Strength of Materials

Lecturer: Dr. Kourosch Shahriar

Course Goals and Objectives

Acquiring essential abilities for doing rock engineering projects.

Course Topics

- Introduction
- Stress state in a region
- Failure criteria
- Mechanical properties of intact rock
- Rock mass classification
- In situ stress
- Stress distribution around the Mining openings

Reading Resources

- Rock mechanics booklet
- Vutukuri Venkata. S. Rock testing and instrumentation. University of Wollengong. Australia.
- Hudson. John. A, 1992. Rock engineering systems theory and practice. Ellis Horwood, New York
- Hudson, John. A, and Harrison John, P. 1997. Engineering rock mechanics. Pergamon