

Department: Mining Engineering

Division: Mining Exploitation and Rock Mechanics

Level and Major: BSc, Mining Exploitation and Rock Mechanics

Course Title: Statics

Number of Credits: 3

Corequisite: General Mathematics1

Lecturer: Dr. Ebrahim Farrokh

Course Goals and Objectives

An introduction towards the mechanics of rigid bodies

Course Topics

- Introduction
- Statics of Particles
- Equivalent Systems of Forces
- Equilibrium of Rigid Bodies
- Centroids and Centers of Gravity
- Analysis of Structures
- Forces in Beams and Cables
- Friction
- Moments of Inertia

Reading Resources

- Beer, Johnston, Mazurek, Cornwell, 2013. VECTOR MECHANICS for ENGINEERS: Statics and Dynamics.