

**Department:** Mining Engineering

**Division:** Mining Exploration and Mineral Processing

**Level and Major:** BSc, Mining Exploration and Mineral Processing

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**Course Title:** Statics

**Number of Credits:** 3

**Corequisite:** General Mathematics1

**Lecturer:** Dr. Ebrahim Farrokh

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### **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.