

**Department:** Mining Engineering

**Division:** Mining Exploration and Mineral Processing

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

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**Course Title:** Laboratory Of Mineral Processing

**Number of Credits:** 1

**Corequisite:** Principles Of Mineral Processing

**Lecturer:** Dr. Mehdi Irannajad

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### **Course Goals and Objectives**

Introduction to operations with various equipment, process design, data processing, flow sheet development.

### **Course Topics**

- General instruction, safety in laboratory
- Sample preparation
- Liberation degree determination
- Particle size distribution
- Operation with crushers and mills
- Work index determination
- Operation with screens, classifiers and hydrocyclons
- Operation with gravity separation equipment
- Operation with magnetic and electrical separators
- Flotation of different minerals

### **Reading Resources**

- References indicated in principles of ore dressing course
- A. Z. M. Abouzeid, Mineral Processing Laboratory Manual