

**Department:** Mining Engineering

**Division:** Tunneling and Underground Spaces

**Level and Major:** MSc, Tunneling and Underground Spaces

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**Course Title:** Advanced Strength of Materials

**Number of Credits:** 2

**Lecturer:** Dr. Saeid Nikoosokhan

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### **Course Goals and Objectives**

The purpose of this course is to enable students to understand the fundamental issues of solid mechanics and its application in mining engineering.

### **Course Topics**

- Review of stress and strain conversions
- Mohr circle and in situ stresses
- Review and complete the beam bending and deflection
- Buckling
- Energy methods
- Frame analysis