

Department: Mining Engineering

Division: Rock Mechanics

Level and Major: Ph.D., Rock Mechanics

Course Title: Advanced Fracture Mechanics

Number of Credits: 3

Lecturer: Dr. Hamed Molladavoodi

Course Goals and Objectives

Advanced fracture mechanics.

Course Topics

- Elastoplastic fracture mechanics
- Micromechanical damage mechanics
- Plasticity principle
- Phenomenological damage mechanics
- Elastoplastic models
- Fracture mechanism
- Linear elastic fracture mechanics

Reading Resources

- Fracture mechanics with an introduction to micromechanics by Frederick F. Ling, 2011
- Fracture mechanics: Fundamentals and Applications by T.L. Anderson, 2005