

Department: Mining Engineering

Division: Mining Exploration

Level and Major: MSc, Mining Exploration

Course Title: Dam Site Engineering

Number of Credits: 2

Lecturer: Dr. Homayoon Katibeh & Hamidreza Ramazi

Course Goals and Objectives

Learning and understanding of dams and dam site selection criteria.

Course Topics

- Introduction to Dams, Dam construction, and classification
- Ancillary structures, cofferdam, Diversion tunnel spillway, spillway brain, Tulip
- Dam sites investigation steps
- Dam site selection criteria, Topography, Geology, Geotechnics, hydrology, hydrogeology, Raw materials, seismicity, Environment
- Site geology and geotechnical Investigations
- Geophysical Investigations in dam sites
- Rock mechanic and soil mechanical Investigations
- Seepage and grouting in dam sites
- Review and conclusion

Reading Resources

- Ray K. Linsley, Joseph B. Franzini, 2007, Water Resources Engineering Sharma, H. D. (1991)"Embankment Dams", Oxford and IBH Publishing Co.