

Department: Mining Engineering

Division: Tunneling and Underground Spaces

Level and Major: MSc, Tunneling and Underground Spaces

Course Title: Special Topics in Tunneling

Number of Credits: 2

Lecturer: Dr. Ebrahim Farrokh

Course Goals and Objectives

A review on the steps of urban tunneling with TBM and the operational parameters management.

Course Topics

- TBM application history
- TBM types
- TBM launching procedure
- Shaft construction
- Face pressure control
- Volume loss control
- Foam injection parameters
- Cute-head access
- TBM selection criteria
- Main design parameters
- Case study
- Risk analysis

Reading Resources

- Mechanized Tunneling in Urban Areas