



Course Name:

Advanced Engineering Geology

Course Number: 20-452	Credit: 3
Program: Graduate	Course Type: Technical Selective
Prerequisite: -	Corequisite: -

Course Description (Objectives):

This course aims to familiarize students with advanced topics in engineering geology, including the preparation of geological maps and reports, as well as field exploration methods.

Course Content (outline):

- Chapter 1: Surface Investigations
- Chapter 2: Geophysical Explorations
- Chapter 3: Hydrogeological and Hydrological Investigations
- Chapter 4: Geotechnical Drilling Methods
- Chapter 5: Geotechnical Sampling
- Chapter 6: Geotechnical Data Processing
- Chapter 7: Specialized Exploratory Operations
- Chapter 8: Field Visits

References:

- De Vallejo and Ferrer, M. (2011), Geological Engineering, CRC Press
- Rahn, H. R. (1996), Engineering Geology: An Environmental Approach, Prentice Hall
- Legget, R.F. (1962), Geology and Engineering, McGraw Hill
- Clayton, C.R.I, Simons, N.E., Mathews, M.C. (1982), Site Investigation, Granada
- Duncliff, J. (1994), Geotechnical Instrumentation for Monitoring Field Performance, John Wiley