



Course Name:

Advanced Foundation Engineering

Course Number: 20-418	Credit: 3
Program: Graduate	Course Type: Technical Required
Prerequisite: -	Corequisite: -

Course Description (Objectives):

The objective of this course is to familiarize students with the methods of designing foundations and stabilizing excavations, with an emphasis on their practical applications in real-world projects. These include the design of shallow foundations, excavation support systems, retaining walls, and various types of piles.

Course Content (outline):

- Chapter 1: Field Studies
- Chapter 2: Shallow Foundations
- Chapter 3: Sheet Piles
- Chapter 4: Anchored Excavations
- Chapter 5: Retaining Wall Design
- Chapter 6: Deep Foundations (Driven Piles)
- Chapter 7: Deep Foundations (Cast-in-Place Piles)

References:

- Bowles, J.E., (1997), "Foundation Analysis and Design", 5th ed, McGraw Hill
- Das, B.M. (2016), "Principles of Foundation Engineering", 8th ed, Cengage Learning
- Coduto, D.P. (2001), "Foundation Engineering, Principles and Practices", 2nd ed, Prentice Hall