

Introduction To Geomechanics 206-12071 – 2.5 credits

Prof. Yossef Hatzor

Syllabus

Introduction; Soil classification, soil-water interaction, point stress, stress transformation, effective stress, theory of consolidation, quantitative assessment of amount and rate of consolidation, mechanical behavior of rocks and soils, shear strength of cohesionless soils, shear strength of cohesive soils, introduction to slope stability.

Bibliography

1. Craig, R. F. 1997. Soil Mechanics. 6th ed. Spon Press. London.
2. Sowers, G. F. Introductory Soil Mechanics and Foundations: Geotechnical Engineering. 4th ed. Macmillan Publishing Co. New York. 1979.
3. Holtz, D. H., and Kovacs, W. D. An Introduction to Geotechnical Engineering. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
4. McCarthy, D. F. Essentials of Soil Mechanics and Foundations: Basic Geotechnics. 4th ed. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
5. Lambe T. W., and Whitman, R. V. Soil Mechanics. John Wiley & Sons, New York. 1969.
6. Terzaghi, K., and Peck, R. B. Soil Mechanics in Engineering Practice. 2nd ed. John Wiley & Sons, New York. 1967.

Course Requirements

Prerequisite: Physics 1C

2 hr lecture

1 hr tutorial