



Jordan University of Science and Technology
Faculty of Engineering
Civil Engineering Department

CE565 Applied Geotechnical Engineering

Summer Semester 2019-2020

Course Catalog

3 Credit Hours. Bearing capacity and settlement of shallow foundations (theory and field tests), deep foundations, types of pile foundation, load carrying capacity, static methods and dynamic formulas, pile group, settlement analysis of piles, sheet pile walls and braced cuts. Slope stability analysis.

Text Book

Title	Das, B.M. (2012), Principles of Foundation Engineering, 5th ed., Brooks/ Cole, a division of Thomson Learning, Inc. Thomson LearningTM. USA.
Author(s)	Das, B.M. (2012),
Edition	8th Edition
Short Name	1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
2	Principles of Geotechnical Engineering	Das	9th Edition	

Instructor

Name	Prof. Ahmed Shlash
Office Location	-
Office Hours	
Email	asshslash@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Sun, Mon, Tue, Wed : 11:30 - 13:00

Room: منصة الكترونية

Prerequisites

Line Number	Course Name	Prerequisite Type
234641	CE464 Foundation Engineering	Prerequisite / Study

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Foundation objectives and soil review	From 1
Week 3	Soil Exploration for shallow foundations	From 1
Week 4	Bearing Capacity and settlement of Shallow Foundations using In-situ tests	From 1
Week 5	Lateral earth pressure and design	From 1
Weeks 6, 7, 8, 9	Pile foundation analysis and design	From 1
Weeks 9, 10	Sheet Pile walls and braced cuts design	From 1
Weeks 12, 13, 14	Slope stability analysis	Chapter 15 From 2
Weeks 15, 16	Soil Stabilization	From 1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Provided with a basic understanding of the essential steps involved in a geotechnical site investigation. Familiarized with the procedures used for: (a) bearing capacity estimation, and (b) settlement analysis in the design of shallow foundations using In-situ tests. Familiarized with the procedures used for calculating lateral earth pressure. [1SLO1, 1SLO2]	40%	
Familiarized with the procedures used for: (a) end bearing capacity and (d) skin friction estimation in the design of deep foundations. expose students to the slope stability problems. [1SLO1, 1SLO2]	50%	
Provided with an opportunity to apply geotechnical engineering principles to a "real life" geotechnical engineering design problems. [10SLO7]	10%	

Relationship to Program Student Outcomes (Out of 100%)						
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
45	45					10

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