



HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Soil Mechanics 1					
CODE: CE361		SEMESTER: FALL			
LANGUAGE: ENGLISH		TYPE: COMPULSORY			
PRE-REQUISITES: - CO-REQUISITES: -		THEORY	PRACTICAL	CREDIT	ECTS
WEEKLY HOURS: 4		2	2	3	5

CONTENT OF THE COURSE:

Physical properties of soils. Soil classification, soil structure and moisture effects. Total and effective stress calculation. Soil permeability and flow. Executing some basic laboratory experiments: Sieve analysis, Atterberg Limits, and Proctor compaction.

OBJECTIVE OF THE COURSE:

This course aims to teach students the main concepts in soil mechanics. It is aimed to make the students the capable of making soil classification, determining basic soil properties and calculating flow in soil.

WEEKLY SCHEDULE AND PRE-STUDY PAGES

Week	Topics
1	Phase relations
2	Phase relations
3	Soil Classification
4	Sieve Analysis Experiment Explanation and Execution
5	Atterberg Limits Experiment Explanation and Execution
6	Soil Compaction
7	Proctor Compaction Experiment Explanation and Execution
8	Midterm week
9	Total Stress in Soils
10	Effective Stress in Soils
11	Darcy's law and seepage
12	Darcy's law and seepage
13	Flow Nets
14	Flow Nets

TEXTBOOK:

- Craig, R. F. (1997) Soil Mechanics (sixth or later edition)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	3	1	0	0	2	0	0	0	0	0	0
LO2	1	1	0	0	2	0	0	0	0	0	0
LO3	2	2	0	0	0	0	0	0	0	0	0
LO4	3	3	0	0	0	0	0	0	0	0	0
LO5	1	0	0	0	3	0	3	0	0	0	0
PO: Program Outcomes LO: Learning Outcomes Values: 0: None 1: Low 2: Medium 3: High											

INSTRUCTOR(S):	Asst. Prof. Dr. Volkan Kalpakcı
FORM PREPARATION DATE:	22.05.2019

LEARNING OUTCOMES OF THE COURSE:
<p>LO1: Physical properties of Soils (Phase relations)</p> <p>LO2: Soil structure and classification</p> <p>LO3: Total and effective stress calculations in soils</p> <p>LO4: Soil Permeability and flow in the soils</p> <p>LO5: Basic laboratory experiments (Sieve analysis, Atterberg limits, Proctor compaction)</p>

<p>CONTRIBUTION OF THE COURSE TOWARDS PROVIDING VOCATIONAL EDUCATION: The student learns the physical characteristics of the floors and the classification of the floors according to different standards, and solves the related problems when encountered in the field.</p>
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