

ADVANCED SOIL MECHANICS

1	Course Title:	ADVANCED SOIL MECHANICS	
2	Course Code:	INS6074	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:		
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Dr. Öğr. Üyesi YEŞİM SEMA ÜNSEVER	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	unsever@uludag.edu.tr 0224 2942946	
17	Website:		
18	Objective of the Course:	Theoretical background to understand and solve problems in Soil Mechanics and Foundation Engineering areas numerically. Consolidation theory in details considering swelling and collapsible soils.	
19	Contribution of the Course to Professional Development:	This course teaches fundamental of soil mechanics in advanced.	
20	Learning Outcomes:		
		1	Be able to understand soil stress and strain behaviors
		2	Be able understand and solve stress and strain relationships in soils
		3	Be able to calculate stresses and strains in soils.
		4	Be able to learn consolidation theory in details
		5	Be able to analyze consolidations and settlements in soils.
		6	Be able to learn critical state soil mechanics
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21	Course Content:		
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Week	Theoretical	Practice	
1	Introduction		
2	Concept of stress and strain, Principal stresses and strain; Stress- strain relationships		
3	Concept of stress and strain, Principal stresses and strain; Stress- strain relationships		

ÖK4	5	0	4	3	0	4	0	0	0	0	0	0	0	0	0	0
ÖK5	5	4	5	4	0	5	0	0	0	0	0	0	0	0	0	0
ÖK6	5	4	5	4	0	5	4	0	0	0	4	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			