

SOIL MECHANICS II

1	Course Title:	SOIL MECHANICS II	
2	Course Code:	INS3072	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	3	
6	Semester:	6	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	1.00	
10	Laboratory (hour/week):	1	
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	
17	Website:		
18	Objective of the Course:	Gain the ability to understand the theory and to dExplanation of calculations and problem solutions interest with soil and structures, which are replaced on soil by using fundamental soil mechanic's concept such as consolidation theory, shear strength of soils, lateral earth pressure and slope stability.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To be capable to calculate consolidation settlement
		2	Identification of shear strength of soil
		3	To be able to calculate and analyze lateral earth pressures
		4	To be able to define the slope stability
		5	Gain the skill about defining the mechanical properties of soil by carrying out basic laboratory tests. And to be able to report the experiment results and evaluate them.
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Introduction	Theory, Problem Session	
2	Consolidation, Oedometer test	Theory, Problem Session	
3	Consolidation, Settlement calculation	Theory, Problem Session	
4	Consolidation, Settlement calculation	Theory, Problem Session	

5	Shear Strength of Soils and Related experiments	Theory, Problem Session
6	Shear Strength of Soils and Related experiments	Theory, Problem Session
7	Shear Strength of Soils and Related experiments	Theory, Problem Session
8	Lateral Earth Pressures, Rankine Theory	Theory, Problem Session
9	Lateral Earth Pressures, Rankine Theory	Theory, Problem Session
10	Lateral Earth Pressures, Rankine Theory	Theory, Problem Session
11	Slope stability, Failure modes and their calculation methods	Theory, Problem Session
12	Slope stability, Failure modes and their calculation methods	Theory, Problem Session
13	Slope stability, Failure modes and their calculation methods	Theory, Problem Session
14	Stress Distribution in Soils	Problem Session

22	Textbooks, References and/or Other Materials:	-ÖNALP, A., "Geoteknik Bilgisi 1- Çözümlü Problemlerle Zeminler ve Mekaniği" Birsen Yayınevi, 2007 - UZUNER, B.A. "Temel Zemin Mekaniği" Derya Kitabevi, 2007 - KNAPPETT, J. & CRAIG, R.F. Craig's Soil Mechanics, 2012 -MITCHELL, J.K.&SOGA, "Fundamentals of Soil Behaviour", 3.Ed.Wiley, 1992 -DAS, BM., "Principles of Geotechnical Engineering",
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Activities		Number	Duration (hour)	Total Work Load (hour)
23	Theoretical Assessment	14	2.00	28.00
Practicals/Labs		14	1.00	14.00
	Self study and preparation	14	3.00	42.00
	Midterm Exam	1	30.00	
Homeworks		2	4.00	8.00
	Projects	0	0.00	0.00
	Home work-project	2	10.00	
Field Studies		0	0.00	0.00
	Final Exam	1	0.00	
Midterm exams		1	2.00	2.00
	Total	4	100.00	
Others		0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade		1	2.00	2.00
Final Exams		1	2.00	2.00
Total Work Load				98.00
Total work load/ 30 hr				3.20
Total		100.00		
ECTS Credit of the Course				5.00
Measurement and Evaluation Techniques Used in the Course				

24	ECTS / WORK LOAD TABLE
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ÖK4	5	4	0	3	5	3	0	0	0	0	0	0	0	0	0	0
ÖK5	5	4	3	0	5	4	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			