EK-3

CUMHURİYET UNIVERSITY ENGINEERING FACULTY

Environmental Engineering Department Course Information Form

Department	**Environmental Engineering**		
Semestr/Year	**2/3**		
Name of Course	**Environmental Geotechnics**		
Level of Course	**Undergratuate**		
Mandatory / Selective of Course	**Selective**		
Language of Course	**Turkish**		
Code	**Env. 3014**		
(T+P) hours	**2+0**		
Credit	**2**		
ECTS	**5**		
Prerequest Courses	**none**		
Category of Course	**Environmental Science**		
Course Coordinator	Prof. Dr. Ali YILMAZ	e-mail:ayilmaz	Phone:1298
Course Lecturer	Prof. Dr. Ali YILMAZ		
Other Supplementary Lecturers	none		
Course Objectives	This course aims to contribute teaching main geotechnical information to solve environmental problems.		
Course Content	Introduction to geotechnics, Engineering properties of rocks, Elements of soil mechanics, Rocks as a construction material, Building: site exploration and foundations, Other engineering structures: Bridges, tunnels, dams and their environmental impacts, Site selection, design and environmental impacts, Huge engineering structures and their environmental		

	impacts: a case study: The Atatürk Dam, Preparation and interpretation of engineering maps, Some legal aspects of Geotechnics, Geotechnical design and studies,
Education System	

WEEKLY BASED COURSE CONTENTS		
Week	**Detailed Content**	**Suggested preliminary preperation** (name, page no, etc)
Week 1	General Introduction: Geotechnics, its importance and relationships with other disciplines	Yılmaz, A., 2009, Çevre Jeotekniği (Environmental Geotechnics), CÜ yayını, no 116, Sivas.
Week 2	Geomechanical properties of rocks and soils, Laboratory and field tests,	
Week 3	Defining and classification of rocks and soils in the engineering applications,	
Week 4	Sampling, mapping and presentation of speciments for Geotechnics,	
Week 5	Geotechnical studies relating natural processes I: Earthquakes and liquefaction,	
Week 6	Geotechnical studies relating natural processes I: Landslides and erosion,	
Week 7	Studies on the rock (stone) querry,	
Week 8	Midterm exam,	
Week 9	Tunnel studies,	
Week10	Dam studies,	
Week11	Huge engineering structures and their impacts on the environment,	
Week12	Geographic Information Systems,	
Week13	Land-use planning and engineering maps,	
Week14	Designing of Environmental Geotechnical studies.	

SHARING EDUCATION MATERIAL AND ADVANCED SOURCES	
Education Materials and Course Notes	Homeworks and seminars are encouraged to improve student interactions.
Advanced Sources	Greschik, G. ve Galos, M., 1998, Environmental Geotechnics-An Overview : Environmental Geology, 35(1), 28-36. Hausman, MR., 1990, Engineering principles of ground modification. McGraw-Hill, New-York. Yılmazer, İ., Yılmazer, Ö., Özkök, D. ve Gökçekuş, H., 1999, Jeoteknik Tasarıma Giriş; Yılmazer Eğitim ve Mühendislik, Ltd. Şti., 420. Sok, 259/1, 100.Yıl, 06530, Çankaya, Ankara, 216 s.
Solution of Examination	In the frame of relative evaluation, students must score minimum 45 over 100, during not only mean of midterm and final exams but also during final exam.

LEARNING OUTCOMES OF THE COURSE AND CONTRIBUTION OF PROGRAM LEARNING OUTCOMES			
Program Learning Outcomes*	**Knowledge and Skills earned**	**CPLOC**	**MEM**
LO-1			
LO-2			
LO-3			
LO-4			
LO-5			
LO-6			
LO-7			

***LO**: Learning Outcomes of Course*
***CPLOC**: Code of Program Learning Outcome that contributed*
***MEM**: Measurement and Evaluation Method*

* Learing Outcomes of Course (LO) shouldn't exceed 10

CONTRIBUTION LEVEL OF COURSE TO PROGRAM OUTCOMES		
	Program Learning Outcomes *	**Contribution**

		level **				
		1	2	3	4	5
P1						
P2						
P3						
P4						
P5						
P6						
P7						
P8						
P9						
P10						
P11						

* ıProgram outcomes must be in the range of 8 – 14. ** at least=1

METHODS OF MEASUREMENT AND EVALUATION			
Method	**Number**	**Date**	**Contribution ratio**
Midterm			
Short exam			
Final Exam			
Homework			

ECTS/ WORK LOAD TABLE			
Efforts required fort the course	**Number**	**Time (hour)**	**Total work load (hour)**
Lecture hours (Including exam week.i.e., 16x total lecture hours)			
Study hours of student out of lecture hours			
Short exams			

Preperation for midterm			
Midterm			
Preperation for final exam			
Final exam			
		Total work load	
		Total work load /30 (h)	
		ECTS credit of course	