

# TOROS ÜNİVERSİTESİ

Faculty Of Engineering  
Civil Engineering (English)

## Course Information

FOUNDATION ENGINEERING					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CVE407	Fall	3	0	3	5

<b>Prerequisites and co-requisites</b>	none
<b>Language of instruction</b>	Turkish
<b>Type</b>	Required
<b>Level of Course</b>	Bachelor's
<b>Lecturer</b>	Prof. Dr. Aziz ERTUNÇ
<b>Mode of Delivery</b>	Face to Face
<b>Suggested Subject</b>	none
<b>Professional practise ( internship )</b>	None
<b>Objectives of the Course</b>	This course aims to give you a broad understanding of the fundamentals of engineering as well as a solid grounding in mathematics, shallow and deep pile foundations, retaining structures and other subjects that will allow you to successfully proceed to the undergraduate level.
<b>Contents of the Course</b>	Field inspection, test methods of land, Shallow foundations: bearing capacity, allowed bearing capacity, settlement, mat foundations, pile foundations, Bored piles, caissons, lateral earth pressure, retaining structures

## Learning Outcomes of Course

#	Learning Outcomes
1	Has knowledge of Shallow and deep foundations, retaining structures, geotechnical engineering structures, design and analysis methods
2	Examines the different geotechnical problems of soil mechanics information
3	settlement analysis of Foundations
4	slope stability and retaining structure design

## Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Soil and Foundation Engineering, general information about the construction of the basic input	Theory and practice
2	Soil surveys, soil investigation methods	Theory and practice
3	Probes and field tests	Theory and practice
4	Laboratory tests and other methods of soil investigation	Theory and practice
5	Preparation of Soil Survey reports	Theory and practice
6	Basic materials used in foundation	Theory and practice
7	Mid-term exam	written exam
8	Introduction to the foundation systems and calculations of bearing capacity of soils	Theory and practice
9	Theorems of bearing capacity of soils and calculation methods	Theory and practice
10	Foundation types and calculations of bearing capacity of shallow foundations	Theory and practice
11	Introduction to deep foundation systems and bearing capacity calculations	Theory and practice

12	Foundation excavation pits and measures to be taken	Theory and practice
13	Structures holding the soil behind them and the design parameters	Theory and practice
14	Sheet piling, anchors, their usages and calculation methods	Theory and practice
15	Settlements and calculations of foundation consolidations	Theory and practice
16	Final Exam	written exam

## Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	CODUTO, D.P., 2005. Temel Tasarımı. Gazi Kitabevi, Ankara.		
2	YILMAZ, R., 2004, Temel İnşaatı, Birsen Yayınevi, İstanbul.		

## Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

## Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Has knowledge of Shallow and deep foundations, retaining structures, geotechnical engineering structures, design and analysis methods	2	1
2	Examines the different geotechnical problems of soil mechanics information	2	1
3	settlement analysis of Foundations	2	1
4	slope stability and retaining structure design	2	2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

## Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	3	42
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	12	12
8	Midterm Exam	1	2	2
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	12	12

16	Final Exam	1	2	2
				<b>112</b>