

TOROS ÜNİVERSİTESİ

Institute Of Graduate Education
Civil Engineering Master's Program (With Thesis)

Course Information

DEEP EXCAVATIONS AND RETAINING STRUCTURES					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
FIM608	Spring	3	0	3	6

Prerequisites and co-requisites	
Language of instruction	Turkish
Type	Elective
Level of Course	Master's
Lecturer	PROF.DR. AZİZ ERTUNÇ
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	Application of deep foundation systems and examination of applied methods to provide stability in deep excavation
Contents of the Course	Deep Foundations - Piles, Functions and Classification of Piles, Behavior of Piles under Axial Loads, Pile Loading Capacity, Behavior of Piles under Axial Load, Examination of Lateral Loaded Piles, Well and Box Piles, Use of Piles in Deep Excavations, Anchorage in Excavation Coatings

Learning Outcomes of Course

#	Learning Outcomes
1	Basic types and functions
2	Lateral loaded piles
3	Mixing systems, anchorage and floor masonry
4	

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	piles	lecture
2	Functions and classification of piles	lecture
3	Behavior of piles under axial load	lecture
4	Behavior of piles under axial load	lecture
5	Transport strength of piles	lecture
6	Transport strength of piles	lecture
7	Seating behavior under axial load in piles	lecture
8	Seating behavior under axial load in piles	lecture
9	Excavation coatings (coated excavations, excavation systems)	lecture
10	Excavation coatings (coated excavations, excavation systems)	lecture
11	Excavation coatings (coated excavations, excavation systems)	lecture
12	Anchorage use in excavation coatings	lecture

13	Anchorage use in excavation coatings	lecture
14	Anchorage use in excavation coatings	lecture
15	Anchorage use in excavation coatings	lecture
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	B.M. Das (1998) Principles of Geotechnical Engineering, PWS Publishing, (ISBN 0-534-95179-1)Aytekin, M. Çözümlü Problemlerle Temel Tasarımı, Derya Kitabevi. 2009, TrabzonÖnalp, A., Sert A. SGeoteknik Bilgisi III, Birsen YayıneviGeoteknik Bilgisi III Bina Temelleri, Prof. Dr. Akın Önalp Sedat Sert, İstanbul 2010.Uzuner, B.A.,2005, Temel Zemin Mekaniği, Derya Kitabevi, 6. Baskı, Trabzon		

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	Basic types and functions	1	1,2
2	Lateral loaded piles	5	1,2
3	Mixing systems, anchorage and floor masonry	4	1,2
4			

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	7	98
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	3	2	6
8	Midterm Exam	0	0	0
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	3	1	3
16	Final Exam	1	1	1

