

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Civil Engineering (English)

Course Information

GEOLOGY FOR CIVIL ENGINEERING					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CVE106	Spring	3	0	3	3

Prerequisites and co-requisites	NONE
Language of instruction	Turkish
Type	Required
Level of Course	Bachelor's
Lecturer	PROF.DR. AZİZ ERTUNÇ
Mode of Delivery	Face to Face
Suggested Subject	NONE
Professional practise (internship)	None
Objectives of the Course	The aim of this course is to transfer basic concepts of earth sciences in the civil engineering perspective, define importance of geological materials and conditions for civil engineering structures and explain significance of geological materials and processes in the civil engineering applications.
Contents of the Course	Structure of earth, minerals and rocks, classification of rocks, engineering properties of rocks, geological maps and sections, earthquakes, mass movements and landslides, dams, tunnelling geology, hydrogeology and environmental geology, foundation engineering and geology, important of geology at city and regional planning.

Learning Outcomes of Course

#	Learning Outcomes
1	Designs a system, a component or a process in order to meet the needs of various engineering problems within technical, economic, environmental, manufacturability, sustainability limitations.
2	Identifies proper sources of information and databases, reaches them and uses them efficiently.
3	Follows the advancements in science and technology being aware of the necessity of lifelong learning and continuously improves her/himself.
4	Uses the computers and information technologies related with civil engineering actively.
5	Gains the ability to communicate effectively both orally and in writing.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Introduction (Description of geology, sub-disciplines, the relationship between civil engineering)	literature review and reading
2	Earth structure, formation and composition, homework-1	literature review and reading
3	Earth's building materials (atoms, elements and minerals), homework-2	literature review and reading
4	Igneous rocks	literature review and reading
5	Sedimentary rocks	literature review and reading
6	Metamorphic rocks	literature review and reading
7	Structures of Rock (primary and secondary structures)	literature review and reading
8	Midterm exam	

9	Rock structures	literature review and reading
10	Earthquakes and geology	literature review and reading
11	Slope stability	literature review and reading
12	Groundwater geology, tunnelling geology and structures under ground	literature review and reading
13	Dams geology	literature review and reading
14	Foundation engineering and geology	literature review and reading
15	Geology in the city and regional planning	literature review and reading
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	Erguvanli, K. Mühendislik Jeolojisi, Seç Yayın Dağıtım, 1994, İstanbul.		
2	Nail Ünsal, İnşaat Mühendisleri için Jeoloji, Gazi Yayınevi, 2001.		

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	Designs a system, a component or a process in order to meet the needs of various engineering problems within technical, economic, environmental, manufacturability, sustainability limitations.	2	1
2	Identifies proper sources of information and databases, reaches them and uses them efficiently.	1	1
3	Follows the advancements in science and technology being aware of the necessity of lifelong learning and continuously improves her/himself.	1	1
4	Uses the computers and information technologies related with civil engineering actively.	1	1
5	Gains the ability to communicate effectively both orally and in writing.	1	1

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	4	4
8	Midterm Exam	1	4	4
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	1	4	4
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	4	4
16	Final Exam	1	4	4
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