



HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Geology for Civil Engineers					
CODE: CE162		SEMESTER: SPRING			
LANGUAGE: ENGLISH		TYPE: COMPULSORY			
PRE-REQUISITES: - CO-REQUISITES: -		THEORY	PRACTICAL	CREDIT	ECTS
WEEKLY HOURS: 2		2	0	2	2

CONTENT OF THE COURSE:

Structure of the Earth, geological cycles, rock and mineral types, soil properties, geological structures, active tectonics and earthquake hazards, groundwater, dams and reservoirs, foundations, tunnels, slope stability and landslides, natural construction materials, formation and prevention of the natural disasters such as earthquake, flood, landslide, and avalanche

OBJECTIVE OF THE COURSE:

To introduce the basic knowledge of the layers of the earth, rocks and minerals, external and internal earth processes Better understanding of earthquake, flood, landslide etc. and precautions to be taken To develop students' ability to visualize three dimensional nature of the geological units

WEEKLY SCHEDULE

Week	Topics
1	Content and purpose of the course and basic terminology in geology
2	Structure of the Earth, geological cycles , minerals and rocks
3	Igneous rocks
4	Sedimentary and metamorphic rocks
5	Geological structures
6	Hydrogeology
7	Mass movements
8	Midterm Week
9	Foundation geology
10	Geology of dam site
11	Tunnel geology
12	Earthquake
13	Geological construction materials
14	An overview

TEXTBOOK: •Lecture Notes, Engineering Geology by Perry H.Rahn Course web-site- Lecture Notes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	1	0	0	0	0	0	0	0	0	0	0
LO2	1	0	0	0	0	0	0	0	0	0	0
LO3	1	0	3	0	3	0	0	0	0	0	0
LO4	1	0	3	0	3	0	0	0	0	0	0
LO5	1	0	3	0	3	0	0	0	0	0	0
PO: Program Outcomes LO: Learning Outcomes Values: 0: None 1: Low 2: Medium 3: High											

INSTRUCTOR(S):	Inst.Nurullah AKBULUT
FORM PREPARATION DATE:	22.05.2019

LEARNING OUTCOMES OF THE COURSE:
<p>LO1: To define the basic types of earth materials, earth structures and earth processes</p> <p>LO2: Occurrence and types of mass movements</p> <p>LO3: Selection and investigation of dam site and reservoir area</p> <p>LO4: Geology of foundation and tunnel</p> <p>LO5: Natural construction materials</p>

CONTRIBUTION OF THE COURSE TOWARDS PROVIDING VOCATIONAL EDUCATION: Students learn about the types and features of floors and rocks that will appear in all civil engineering applications.
