COURSE OUTLINE

(1) General

School:	Social Sciences		
Academic Unit:	Geography		
Level of studies	Undergraduate		
Course Code:	GEO 210	**Semester:**	D
Course Title:	Intoduction to Geology		
Independent Teaching Activities	**Weekly Teaching Hours**	**Credits**	
Lecture	3		
		Course total	5
Course Type:	Required Elective		
Prerequisite Courses:	None		
Language of Instruction and Examinations	Greek		
Is the course offered to Erasmus students:	No		
Course Website (Url):	https://geography.aegean.gr/pps/index_en.php?content=0&lesson=210		

(2) Learning Outcomes

Learning Outcomes

Geology is the fundamental discipline of Geosciences. The aim of the course "Introduction to Geology" is to provide students with a clear and basic understanding of Earth's geological structures and processes taking place on the planet since its formation. The course includes an overview of the current knowledge and modern research methods for the interpretation of the various geological phenomena. Students will gain basic knowledge to understand the main geological processes and identify the ways in which geology affects human activities. Specific objectives include understanding (a) the Earth's interior and the processes of formation of the major geologic materials (rocks, minerals and resources), (b) the interactions in the lithosphere, hydrosphere, atmosphere and biosphere to shape earth, (c) the ways in which geology affects everyday life (natural hazards, e.g. earthquakes, floods, landslides). Upon successful completion of the course the students will receive a thorough background in Geology which can be applied to a wide range of subjects in geotechnical and environmental sciences.

General Competences

1. Working independently
2. Respect for the natural environment
3. Criticism and self-criticism
4. Production of free, creative and inductive thinking

(3) Syllabus

The course offers an introduction to the Geosciences presenting the basic geological structures and processes, along with the current geological theories for the interpretation of various aspects of Earth's history through time. The topics of the course include: the interior structure of the Earth. Plate Tectonics. Mechanism of earthquakes and seismic waves. Magnitude and intensity of earthquakes. Seismicity of

Greece. Volcanism. Volcanoes of Greece. Types of Rocks (igneous, sedimentary and metamorphic rocks) and Minerals. Structural geology (faults, folds). Geological circle. Orogenic systems. Brief geological history of Greece and Europe. Paleoclimatology - Glacial periods. Weathering, Erosion, Karst. Fossils. Geologic time scale. Quarry materials and minerals and Mineral Resources of Greece. Geothermal energy.

(4) Teaching and Learning Methods - Evaluation

Delivery:	Face to face	
Use of Information and Communication Technology:	Student contact electronically. Power point presentations.	
Teaching Methods:	**Activity**	**Semester workload**
Lecture	39	
Project	40	
Non-supervised study	48	
Performance evaluation/Exams	3	
	Course total<	130
Student Performance Evaluation	Written examination (70%) and essay report (30%).	

(5) Attached Bibliography

Doutsos T., 2000: Geology: Principals and Applications. Leader Books, Athens (in Greek)Papanicolaou D. and Sideris H, 2007: Geology: The Science of Earth. Patakis edition, Athens (in Greek)

Fletcher C., 2010: Physical Geology: The Science of Earth. Wiley & Sons, Inc.

Lutgens, F.K., Tarbuck E.J. and Tasa D, 2011: Essentials of Geology. Prentice Hall (11th Edition), New Jersey.

Mountrakis, D., 2010. Geology and Geotectonic evolution of Greece. University Studio Press, Thessaloniki (in Greek).

Pavlides, S., 2003: Geology of the Earthquakes. University Studio Press, Thessaloniki (in Greek).

Tarbuck EJ, Lutgens F, Tasa D, 2007: Earth: An Introduction to Physical Geology. Prentice Hall (9th Edition), New Jersey.