

**Faculty of Engineering & Technology**

**General Geology**

**Information :**

**Course Code :** GEO 201                      **Level :** Undergraduate                      **Course Hours :** 2.00- Hours

**Department :** Department of Petroleum Engineering

**Instructor Information :**

Title	Name	Office hours
Associate Professor	Ashraf Fahmy Mohamed Ismael	2
Teaching Assistant	Amera Alaa Mohammed Ali	

**Area Of Study :**

To give students a greater understanding of basic geologic concepts such as minerals, rocks, plate tectonics and processes that occur on the earth, and provide an awareness of the geological environment through the identification of rocks and minerals, various processes, and structural concepts.

**Description :**

The course covers cosmology and Earth formation, mineralogy, different rock types, sedimentary processes, volcanoes, geologic time, plate tectonics and crustal deformation, earthquakes, surface processes of erosion, weathering in different geologic environments.

**Course outcomes :**

**a.Knowledge and Understanding: :**

1 -	To be familiar with different types of minerals and rocks
2 -	Students have effective written, oral, and graphic communication skills in general and within geology.
3 -	the core concepts associated with this module as indicated by the contents.

**b.Intellectual Skills: :**

1 -	Students are able to carry out geological research, including problem definition, study design, analytical procedures, analysis of results, and communication of results.
2 -	draw cross sections and contour mapping of surface and subsurface geological formations pertinent to reservoir problems
3 -	Differentiate between reservoirs and non-reservoir rocks

**c.Professional and Practical Skills: :**

1 -	Students have broad understanding of geological knowledge and supporting field, laboratory, and computer skills.
2 -	Analyze available data and material for subsurface geological evaluation.

**d.General and Transferable Skills: :**

1 -	Students have the confidence to solve problems independently in the field and in the lab.
2 -	Ability to work in team.

3 - Report writing skills and presentation one.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction	2	Introduction	
Plate Tectonics	2	Different methods in geology	Discussion of assignments and weekly work sheets
Minerals and Rocks	8	As above	As above
Topographic and Geologic Maps	2	As above	As above
Geologic Time	2	As above	As above
Weathering	4	As above	As above
Structural Geology and earthquakes	4	As above	As above
water	4	As above	As above
Surface Processes	2	As above	As above

**Teaching And Learning Methodologies :**

Weekly oral lectures using white board

Power Point presentations using data show

Displaying animated short videos

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Assignments and reports	5.00	1	
Final Exam	40.00	15	
Quizzes	5.00	5	
Weekly tutorials and attendance	10.00	1	

**Course Notes :**

PDF files available direct after lectures

**Recommended books :**

Lecture – Exploring Geology (2nd edition) by Reynolds et al.

Lab – Laboratory Manual for Physical Geology (14th edition) by Zumberge et al.

**Periodicals :**

Teaching this course needs: Crystal models, Mineral samples, and Rock samples.

