

**Faculty of Engineering & Technology**

**Engineering Geology**

**Information :**

**Course Code :** SCM 313

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** Department of Structural Engineering & Construction Management

**Instructor Information :**

Title	Name	Office hours
Associate Professor	Tamer Mohamed Abdel Hamid Sorour	4
Associate Professor	Tamer Mohamed Abdel Hamid Sorour	4
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	20
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	20
Teaching Assistant	Mahmoud Mohamed Khalaf Ahmed	2

**Area Of Study :**

Upon successful completion of this course, the student should be able to:

- Understand the basic concepts and main principles
- Calculate the values of the essential terms
- Apply Codes provisions
- Carry out the related tests

Regarding formation of earth rock cycle geological features properties of rocks soil formation properties of soil

**Description :**

Engineering classification and properties of minerals and rocks, Nature and properties of the earth's crust, Faults, folds, joints and joint systems, Earthquakes : centre, waves, the centre of the earth, Geologic map of Egypt, Building materials, Concrete materials (aggregates and cement), Geophysics applied in civil engineering, Ground water : distribution G.W, motion of G.W., G.W. Level ,G.W. Pollution ,Problems related to extraction of G.W., Weathering problems ,Field visits to geologic sites.

**Course outcomes :**

**a.Knowledge and Understanding: :**

1 -	Define the main terms of formation of earth
2 -	Explain the principals of rock cycle
3 -	List the main items of geological features
4 -	Define the main terms of soil formation

**b.Intellectual Skills: :**

1 -	Calculate the values of properties of rocks
2 -	Calculate the values of properties of soil

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

1 -	Draw neat details of rock cycle
2 -	Prepare technical reports for geological features
3 -	Proceed test steps of the properties of rocks
4 -	Proceed test steps of the properties of soil

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

1 -	Work under stress
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**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Formation of Earth	2	2	1
Rock Cycle	8	8	8
geological features	2	4	4
properties of rocks	8	8	8
soil formation	4	4	4
properties of soil	4	4	4
Revision			

**Teaching And Learning Methodologies :**

Interactive Lec.
Discussion
Problem Solving
Lab Exper.
Report / Present.

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Final Exam			
Lab Exper.	25.00		
Mid- Exam I, II	10.00		
Quizzes / Assig.	25.00		
Report / Present.	40.00		

**Course Notes :**

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**Recommended books :**

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- "Soil Mechanics and Foundation Engineering", K.R. Arora , 2004  
Additional References: - Handout notes on MOODLE

**Periodicals :**

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**Web Sites :**

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