



Philadelphia University

Faculty of Engineering & Technology

Department of Civil Engineering

Second Semester 2024/2025

Course Information

Title:	Engineering Geology 0670231
Prerequisite:	250102
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	Engineering Geology ,Principles and Practice, by David George
References:	Engineering Geology ,F G Bell
Course Description:	Engineering geology is an applied geology discipline that involves the collection, analysis, and interpretation of geological data and information required for the safe development of civil works.
Website:	http://www.philadelphia.edu.jo/academics/maldwaik
Instructor:	Dr. Mais Aldwaik Email: maldwaik@philadelphia.edu.jo Office: Engineering building, room 815, ext.: 2402 Office hours: Sun, Tues: 10:35-12:40 Sat, Mon: 12:30-1:30
Technology Requirements	<ul style="list-style-type: none">• Personal computer, laptop, or mobile phone.• Internet Connection.• Access to Philadelphia University E-Learning Portal (MS Teams and Moodle)
Learning Style	Online/Blended
Communication	<ul style="list-style-type: none">• Announcement: the announcements will be posted in MS Teams or Moodle on a regular basis.• Email.• MS Teams or Moodle chats.
Class Recording	<ul style="list-style-type: none">• All Synchronous lectures will be recorded and will be available on MS Teams.

Course Objectives:

This course aims to:

- Study the geological factors regarding the location, design, construction, operation and maintenance of engineering works.

- Participate in civil or structural engineering design and value engineering and construction phases of public and private works projects.
- Study the various types of soils and to classify the best soil to be used for a specific engineering construction.

Course Learning Outcomes (CLO) and Relation to ABET Student Outcomes

[1]	Understand the meaning of engineering geology	1,2
[2]	Study the physical properties of minerals	1,2
[3]	Identification of minerals and rocks:	1,2
[4]	Understand the meaning of earthquakes and its evaluation	2
[5]	Study the formation of different types of soils and their classifications	1,2

Grading Policy and Assessment Instruments

Evaluation of students' performance (final grade) will be based on the following categories

Graded Item	Marks	Topic (s)	Course LO (s)	Learning Portal: MS Teams/ Moodle/ F2F/Others	Week
Mid Exam	30%	Earth Structure Minerals and their properties Rocks and their properties	1,2,3	MS Teams	7
Quizzes & Home works	30%	Rocks and their properties Deformations ,Stresses and Strain in Rocks	1,2,3	MS Teams	3-15
Final Exam	40%	All Topics	1,2,3	MS Teams	16
Total marks	100%				

- Two written exams will be given.
- Copying homework is forbidden, any student caught copying the homework or any part of the homework will receive zero marks for that homework.
- Quizzes: 10-minute quizzes will be given to the students during the semester. These quizzes will cover material discussed during the previous lecture(s).
- Homework: Problem sets will be given to students. Homework should be solved individually and submitted before the due date.
- The final exam will cover all the class material.

Course contents: Learning Resources/ References/ Activities/ Assessment Methods

Week	Lecture	Topic	CLO	Learning Resources/ References/ Activities/ Assessment Method	Learning Style	Learning Portal
					F2F/ Synchronous/ Asynchronous	On campus /MS Teams /Moodle /Others
1,2,3,4,5,6	1,2	Introduction	1	videos lunched on MS-team and etc.	Asyn	MS Teams
	3,4,5,6,7	Earth Structure	1,2	videos lunched on MS-team and etc.	Syn	MS Teams
	8,9,10,11,12	Minerals and their properties	1,2	videos lunched on MS-team and etc.	Syn	MS Teams
7,8,9,10,11	13,14,15	Rocks and their properties	1,2,3	videos lunched on MS-team and etc.	Syn	MS Teams
	16,17,18,19	Deformations ,Stresses and Strain in Rocks	2,3	videos lunched on MS-team and etc.	Syn	MS Teams
	20,21,22	Modulus of Elasticity of Rocks	1,2	videos lunched on MS-team and etc.	Asyn	MS Teams
12,13,14,15,16	23,24,25,26,27,28,29,30,31,32,33	Site Investigation	1,2	videos lunched on MS-team and etc.	Syn	MS Teams
	34,35,36,37	Earthquakes	1	videos lunched on MS-team and etc.	Asyn	MS Teams
	38,39,40,41,42,43,44	Soil Classification	1,2,3	videos lunched on MS-team and etc.	Syn	MS Teams

Credit hours contact

Credit Hours Distribution Report	
Learning Style	Credit hours
F2F	0
Synchronous	16
Asynchronous	32
Total	

Academic Honesty/ student conduct

As a student at Philadelphia University, you are expected to follow the university regulations and guidelines for academic honesty/student conduct found in student handbook.

This means that you should not cheat, plagiarize and let another student use your account in LMS learning portals.

Attendance policy:

Absence from classes and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse, acceptable to and approved by the Dean of the relevant college/faculty, shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

March 2025