

Course Description Form

1. Course Name:					
Soil Mechanics II					
2. Course Code:					
CIV063					
3. Semester / Year:					
Second Semester / 2026					
4. Description Preparation Date:					
23/1/2026					
5. Available Attendance Forms:					
In person					
6. Number of Credit Hours (Total) / Number of Units (Total):					
Number of Credit Hours (Total) 5 / Number of Units (Total) 3					
7. Course administrator's name (mention all, if more than one name):					
Name: عبدالله طالب الياسري Email: abdullah.t@uowa.edu.iq					
8. Course Objectives					
- Study of a number of cases regarding soil–water relationships, water flow (seepage), stresses applied on soil, and the resistance resulting from these stresses. - The most important basic concepts of stresses. - The principle of effective stress. - Capillary rise in soil. - Flow nets and their uses. - Distribution of stresses in soil, and stresses resulting from a concentrated load.					
9. Teaching and Learning Strategies					
Illustrative teaching aids are considered among the most important means of reaching an accurate understanding of soil behavior; these include images and introductory videos, followed by field visits that connect course concepts with practical reality, in addition to presenting illustrative materials on the risks resulting from neglecting soil and foundation details.					
10. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Daily and monthly exams with reports and research	In-person lectures with laboratory	Two-Dimensional Flow	- Simulates the true path of water seepage in soils beneath hydraulic structures. - Visualization of a flow net to facilitate the study of the topic.	15	1-4

Daily and monthly exams with reports and research	In-person lectures with laboratory	Stress in a Soil Mass	• Study of the concepts of stresses applied on soil. • Explanation of the types of loads exerted by water or by the soil itself. • Study of additional external loads from foundations and structures above the soil.	15	5-7
Daily and monthly exams with reports and research	In-person lectures with laboratory	Compressibility of Soil	• Study of the consolidation phenomenon in soil beneath foundations, for various soil types. • Special focus on clayey soils, given the great challenge they present in practice.	15	8-11
Daily and monthly exams with reports and research	In-person lectures with laboratory	Shear Strength of Soil	• Study of strain concepts as a reaction to stresses applied on soil. • Explanation of the types of loads exerted by water or the soil itself, in addition to external loads from foundations and structures above the soil.	15	12-14
			• Review of previous chapters	15	15

11. Course Evaluation

Daily examinations are among the most important evaluation methods for students, followed by monthly and semester examinations, in addition to monthly reports covering some soil-mechanics phenomena and observations. These methods also include student participation in solving problems and in presenting reports and research.

12. Learning and Teaching Resources

Soil Mechanics — R.F. Craig Soil Mechanics — T.W. Lamb & R.V. Whitman Soil Mechanics: Basic Concepts and Engineering Application — A. Aysen	Required textbooks (curricular books, if any)
Advanced Soil Mechanics — Das Soil Mechanics Fundamentals	Main references (sources)
Not specified	Recommended books and references (scientific journals, reports...)
Not specified	Electronic References, Websites


 أ.م.د. قاسم علي حسين
 رئيس قسم الهندسة المدنية

