

**Republic of Iraq**  
**Ministry of Higher**  
**Education and Scientific**  
**Research**  
**Supervision and Scientific**  
**Evaluation Apparatus**



**University: Shatt Al-Arab**  
**College: Engineering**  
**Department: Civil Engineering**  
**Stage: 3<sup>rd</sup> stage**  
**Lecturer name: Dr. Ihsan Qasim**  
**Academic title: Assistant Professor**

### Course Weekly Outline

<b>Name</b>	Dr. Ihsan Qasim Mohammed			
<b>E-mail address</b>	ihsanqasim@sa-uc.edu.iq			
<b>Course name</b>	Soil Mechanics-2			
<b>Course objective</b>	The course aims to present the characteristics of soil used in civil engineering works and how to deal with different types of soil as a construction material and support medium for the foundations of buildings.			
<b>Course description</b>	<ol style="list-style-type: none"> <li>1. Preparing and qualifying specialized engineers to meet the requirements of the labor market in its private and public sectors in civil engineering through diversification in methods of learning and teaching and training students to apply the acquired knowledge and skills to solve realistic problems.</li> <li>2. Providing distinguished academic programs in the field of civil engineering, both theoretical and practical, that comply with international standards of academic quality and meet the needs of the labor market.</li> <li>3. Encouraging and developing scientific research in the fields of civil engineering in general.</li> <li>4. Preparing a stimulating environment for faculty members to develop their knowledge and educational and research skills.</li> <li>5. Building and developing partnership with the governmental and private sectors and society in all its various institutions.</li> </ol>			
<b>References</b>	- Principles of Geotechnical Engineering (By: Braja M. Das, 7th Ed.)			
<b>External sources</b>	-Soil Mechanics (By: R.F. Craig, 4th Ed. or higher)			
<b>Course assessment</b>	<b>Lab.</b>	<b>Quizzes and assessment</b>	<b>Mid-term exam</b>	<b>Final exam</b>
	<b>10</b>	<b>15</b>	<b>20</b>	<b>55</b>
<b>General notes</b>				

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Week No.	Theoretical	Experimental	Aims
1	In situ stresses	Cosolidation test	This module covers a wide range of topics of soil mechanics in order to offer basic knowledge and foundations applicable to various civil engineering problems.
2	Compressibility of soil	Cosolidation test	
3	Compressibility of soil	Shear box test	
4	Compressibility of soil	Unconfined test	
5	Compressibility of soil	Triaxial test	
6	Compressibility of soil	Triaxial test	
7	Shear stress	Triaxial test	
8	Shear stress	Triaxial test	
9	Shear stress	Triaxial test	
10	Shear stress		
11	Shear stress		
12	Soil lateral pressure		
13	Soil lateral pressure		
14	Soil lateral pressure		
15	Soil lateral pressure		