

<b>Course Information</b>	
Course title	Soil Mechanics
Semester	109-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	<a href="#">MEEI-LING LIN</a>
Curriculum Number	CIE3026
Curriculum Identity Number	501 36000
Class	01
Credits	3.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Wednesday 7,8,9(14:20~17:20) Thursday 6(13:20~14:10)
Remarks	Restriction: within this department (including students taking minor and dual degree program) AND Restriction: sophomores The upper limit of the number of students: 40.
Ceiba Web Server	<a href="http://ceiba.ntu.edu.tw/1092CIE3026_01">http://ceiba.ntu.edu.tw/1092CIE3026_01</a>
Course introduction video	
Table of Core Capabilities and Curriculum Planning	<a href="#">Table of Core Capabilities and Curriculum Planning</a>

### Course Syllabus

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Course Description	The objective of this course is to introduce the fundamental elements of the soil mechanics based on the basic knowledge from mechanics courses including statics, material, and fluid. This is the first introductory course leading to the field of geotechnical engineering. The course is designed to proceed parallel with the Soil Mechanics Laboratory to enhance learning and cognition of the subjects.
Course Objective	<ol style="list-style-type: none"> <li>1. Understanding the roles of Geotechnical Engineering in civil engineering.</li> <li>2. Understanding the natural and physical properties of soil as an engineering material and a medium for transmitting stresses.</li> <li>3. Understanding the relationship of ground water in the ground soil layer, and the transmission behavior of ground water in the soil layer.</li> <li>4. Understanding the concept of effective stresses from the distributions of stresses in soil layer and pore water pressure.</li> <li>5. Understanding the compression behavior of soil layer based on the concept of effective stresses.</li> <li>6. Understanding the shearing strength behavior based on the concept of effective stresses.</li> <li>7. Understanding the lateral earth pressure and slope stability problem based on the shearing strength of soil.</li> <li>8. Understanding the control of material properties utilizing soil compaction.</li> <li>9. Introduction to environmental geotechnical engineering.</li> </ol>
Course	Students are required to have passed Statics and Mechanics of Material, and the course is to be taken

Requirement	along with the Soil Mechanics Laboratory. Grading will be based on homeworks, two mid. term exam.s, and final exam. Class performance will also be taken into account.																				
Office Hours																					
References	待補																				
Designated reading	B.M. Das, and K. Sobhan “Principles of Geotechnical Engineering,” SI Version, 9th edition, 2016																				
Grading	<table border="1"> <thead> <tr> <th>No.</th> <th>Item</th> <th>%</th> <th>Explanations for the conditions</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Homework</td> <td>20%</td> <td>late submission or copying are not acceptable.</td> </tr> <tr> <td>2.</td> <td>1st mid term exam</td> <td>25%</td> <td></td> </tr> <tr> <td>3.</td> <td>2nd mid term exam</td> <td>25%</td> <td></td> </tr> <tr> <td>4.</td> <td>final exam</td> <td>30%</td> <td></td> </tr> </tbody> </table>	No.	Item	%	Explanations for the conditions	1.	Homework	20%	late submission or copying are not acceptable.	2.	1st mid term exam	25%		3.	2nd mid term exam	25%		4.	final exam	30%	
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Progress		
Week	Date	Topic
Week 1	02/24, 02/25	Introduction; 2.1-2-6
Week 2	03/03, 03/04	2.7~2.9; 3.1~3.7; 4.1~4.8
Week 3	03/10, 03/11	5.1~5.6
Week 4	03/17, 03/18	7.1~7.6,7.8~7.10
Week 5	03/24, 03/25	8.1 ~8.5; 8.7
Week 6	03/31, 04/01	8.8,8.11; 9.1~9.7; 4/1 Spring break
Week 7	04/07, 04/08	9.9,9.10; 11.1~11.5
Week 8	04/14, 04/15	04/14 1st Mid. term exam. Chapter 2-9
Week 9	04/21, 04/22	11.6~11.14 ;11.16
Week 10	04/28, 04/29	11.18; 10.1~10.3
Week 11	05/05, 05/06	12.1~12.9
Week 12	05/12, 05/13	12.10,12.14,12.16,12.18
Week 13	05/19, 05/20	5/19 2nd Mid. term exam.,Chapter 11-12.
Week 14	05/26, 05/27	13.1~ 13.4,13.6,13.7
Week 15	06/02, 06/03	13.8,13.9,13.11,13.12;15.1~15.2
Week 16	06/09, 06/10	15.3~15.8,15.11~15.13
Week 17	06/16, 06/17	6.1~6.11,7.12,7.13,6.13
Week 18	06/23	final exam, chapters 13,15,6