工程材料學與土壤力學實驗

Engineering Material and Soil Mechanics Lab.

Course Information	
Course title	Engineering Material and Soil Mechanics Lab.
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	WEI-HSIU HU
Curriculum Number	CIE2012
Curriculum Identity Number	501E23300
Class	01
Credits	1.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Monday 7,8,9(14:20~17:20)
Remarks	Restriction: within this department (including students taking minor and dual degree program) AND Restriction: sophomores AND Restriction: overseas Chinese students and international students The upper limit of the number of students: 16.
Course introduction video	
Table of Core Capabilities and Curriculum Planning	Table of Core Capabilities and Curriculum Planning
Course Syllabus	
Please respect the intellectual property rights of others and do not copy any of the course information without permission	
Course Description	By performing laboratory experiments, students can verify the theories and laws which are taught in the companion Soil Mechanics course. This hands-on experience can enhance their learning and understanding. In this course, students would learn the proper procedures for testing soil specimens, analyzing the soil behavior, determining the engineering properties and writing the laboratory reports, which are practical applications in the field of geotechnical engineering.
Course Objective	Students would perform a series of laboratory experiments (in teams) to determine

	the following soil behavior: 1. index parameters (such as grain size distribution, specific gravity, liquid limit and plastic limit etc.) that are used for soil classification 2. fluid flow in soil and hydraulic conductivity 3. consolidation process in soil and compressibility parameters 4. stress-strain behavior and strength of soil from direct shear and triaxial tests 5. compaction curve and field density
Course Requirement	Soil Mechanics (have passed / are taking concurrently)
Student Workload (Expected weekly study hours before and/or after class)	
Office Hours	
Designated reading	
References	Soil Mechanics Laboratory Manual by the Department of Civil Engineering, National Taiwan University AASHTO, Materials. ASTM(2002), ASTM Standards, Vols. 04.08 & 09. Bishop, A. W. and Henkel, D. J.(1962), The Measurement of Soil Properties in the Triaxial Test, 1st edition, Edward Arnold Ltd., London. BS1377(1967), Methods of Testing Soils for Civil Engineering Purposes, British Standards Institution, London. HEAD, K. H.(1980), Manual of Soil Testing. Lambe, T.W., Soil Testing for Engineers, John Wiley&Sons, New York. US Department of the Interior, Bureau of Reclamation(1974), Earth Manual, 2nd edition, U.S. Government Print Office, WashingtonDC.
Grading	1. NTU has not set an upper limit on the percentage of A+ grades. 2. NTU uses a letter grade system for assessment. The grade percentage ranges and the single-subject grade conversion table in the NATIONAL TAIWAN UNIVERSITY Regulations Governing Academic Grading are for reference only. Instructors may adjust the percentage ranges according to the grade definitions. For more information, see the Assessment for Learning Section.

Progress

Week	Date	Topic
No data		

Course Information	
Course title	Engineering Material and Soil Mechanics Lab.
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	YU-WEI HWANG
Curriculum Number	CIE2012
Curriculum Identity Number	501E23300
Class	04
Credits	1.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Monday 7,8,9(14:20~17:20)
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Week	Date	Topic
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