土木工程基本實作

Physical Model Design Laboratory

Course Information	
Course title	Physical Model Design Laboratory
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	STARK, COLIN PETER
Curriculum Number	CIE1011
Curriculum Identity Number	501E10710
Class	02
Credits	2.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Friday 2,3,4(9:10~12:10)
Remarks	Restriction: freshmen AND Restriction: within this department (including students taking minor and dual degree program) The upper limit of the number of students: 20.
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	Allow first-year students to acquire an early design experience, without any prerequisite knowledge. Gain a first exposure to the design-build-test cycle through the fabrication of small-scale physical models. Acquire experience with hands-on teamwork and the management of challenging projects. Learn useful fabrication techniques that can be used to generate, test, and communicate ideas both for engineering design and scientific research. Become aware of technological issues like the choice and use of materials, construction and assembly procedures. Learn to integrate digital design with physical fabrication.
Course Objective	
Course Requirement	Helpful skills: SketchUp & Java programming

Student Workload (Expected weekly study hours before and/or after class)	
Office Hours	
Designated reading	
References	N/A
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	Physical Model Design Laboratory
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	MOHAMMAD TABARROKI
Curriculum Number	CIE1011
Curriculum Identity Number	501E10710
Class	03
Credits	2.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Friday 7,8,9(14:20~17:20)

Remarks	Restriction: freshmen AND Restriction: within this department (including students taking minor and dual degree program) The upper limit of the number of students: 20.
Course introduction video	
Table of Core Capabilities and Curriculum Planning	Table of Core Capabilities and Curriculum Planning
Course Syllabus	
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Course Description	This course provides first-year students with early design experience. There is not much prerequisite knowledge required. Students are introduced to the design–build–test cycle. To do this, students fabricate small-scale physical models in team work. The course emphasizes hands-on fabrication, creativity, and the integration of digital design with physical fabrication.
Course Objective	Upon completion of this course, students will be able to: 1. To design and fabricate small-scale physical models. 2. To apply basic engineering concepts through hands-on experimentation. 3. To work effectively in teams on design projects. 4. To incorporate basic programming to create smart physical models.
Course Requirement	
Student Workload (Expected weekly study hours before and/or after class)	3–5 hours per week
Office Hours	
Designated reading	
References	
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.
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Week	Date	Topic
No data		

Course Information	
Course title	Physical Model Design Laboratory
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	Chen, Yen-Hsiang
Curriculum Number	CIE1011
Curriculum Identity Number	501E10710
Class	04
Credits	2.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Thursday 2,3,4(9:10~12:10)
Remarks	Restriction: freshmen AND Restriction: within this department (including students taking minor and dual degree program) The upper limit of the number of students: 20.
Course introduction video	
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Course Syllabus	
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Course Objective	

Course Requirement	Helpful skills: SketchUp & Java programming
Student Workload (Expected weekly study hours before and/or after class)	
Office Hours	
Designated reading	
References	
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	Physical Model Design Laboratory
Semester	114-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	MOHAMMAD TABARROKI
Curriculum Number	CIE1011
Curriculum Identity Number	501E10710
Class	05
Credits	2.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Friday 2,3,4(9:10~12:10)

Remarks	Restriction: freshmen AND Restriction: within this department (including students taking minor and dual degree program) The upper limit of the number of students: 20.
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Course Objective	Upon completion of this course, students will be able to: 1. To design and fabricate small-scale physical models. 2. To apply basic engineering concepts through hands-on experimentation. 3. To work effectively in teams on design projects. 4. To incorporate basic programming to create smart physical models.
Course Requirement	
Student Workload (Expected weekly study hours before and/or after class)	3–5 hours per week
Office Hours	
Designated reading	
References	
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.
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Week	Date	Topic
No data		