

Course Information	
Course title	Fluid Mechanics
Semester	109-2
Designated for	DEPARTMENT OF CIVIL ENGINEERING
Instructor	
Curriculum Number	CIE2009
Curriculum Identity Number	501 23000
Class	01
Credits	3.0
Full/Half Yr.	Half
Required/ Elective	Required
Time	Tuesday 3,4,5(10:20~13:10) Thursday 2(9:10~10:00)
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	http://ceiba.ntu.edu.tw/1092CIE2009_01
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	Fluid mechanics is the science of studying the motion and dynamics of fluids in motion. The fluid referred to in this course is mainly liquid, especially water. The course content is an introductory study of fluids, and is a basic course for applied disciplines such as hydrology, water conservancy engineering and environmental engineering.
Course Objective	<ol style="list-style-type: none"> 1. Through hydrostatic analysis, to understand the mechanical phenomena when the fluid is at rest. 2. Introduce the concept of fluid dynamics. 3. Introduce the "control volume" analysis method. 4. Analyze fluid dynamics with continuous equations and the concept of conservation of mass. 5. Introduction and phenomenon analysis of non-viscous flow. 6. Introduction and phenomenon analysis of viscous fluid. 7. Use dimensionless analysis to simplify the control factors when analyzing problems.
Course Requirement	Engineering Math.
Office Hours	
References	"A Brief Introduction to Fluid Mechanics", Donald F. Young, Bruce R. Munson, Theodore H. Okiishi, and Wade W. Huebsch, 5th ed., John Wiley & Sons, Inc. (歐亞代理)
Designated reading	To be added
Grading	

Progress

Week	Date	Topic
第2週	3/02,3/04	3/02 Quiz 1
第3週	3/09,3/11	3/09 Quiz 2, chapter 1
第4週	3/16,3/18	3/16 Quiz 3, Sec. 2.1~2.5
第5週	3/23,3/25	3/23 Quiz 4

第6週	3/30,4/01	3/30 Quiz 5
第8週	4/13,4/15	4/13 MT1
第11週	5/04,5/06	5/06 Quiz 6
第12週	5/11,5/13	5/11 Quiz 7
第13週	5/18,5/20	5/20 Quiz 8 chapter 5 angular momentum and energy.
第14週	5/25,5/27	5/25 MT2
第18週	6/22	Final