


College of Engineering			
Department of Civil Engineering			
CE 320 Fluid Mechanics			
Credit and Contact hours	2 / 2 (Lectures), 1 (Tutorials), 0 (Laboratory)		
Required, or Elective	Required for a BSCE degree		
Course Description	Units and Dimensions, fluid properties, fluid pressure at a point, pressure variation with depth, hydrostatic forces on plane and curved surfaces, buoyancy and stability of floating and submerged bodies, flow types (steady, unsteady, uniform, non-uniform), continuity equation, energy equation, momentum equation.		
Prerequisites or Co-requisites	Statics (GE 201)		
Course Learning Outcomes	Students completing this course successfully will be able to		
	Course Learning Outcomes	<i>Related Student Outcomes (SO)</i>	
	CLO1. Determine the magnitude of hydrostatic pressure at points within a fluid, and identify hydrostatic pressure forces on different surfaces.	SO1	
	CLO2. Calculate the buoyancy forces on floating and submerged bodies and discuss their stability.	SO1	
CLO3. Apply the concepts of mass, energy and momentum conservation to calculate flow velocities, pressure and forces with applications.	SO1		
Student Outcomes related to this Course	SO1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. [ABET 1], and using modern engineering tools		
Topics Covered	List of Topics	Related CLOs	
	1. Fluid Statics	CLO1	
	2. Buoyancy and Stability	CLO2	
	3. Fluid Dynamics	CLO3	

Textbook(s) and Other Required Material	Fluid Mechanics 7 th Edition: Munson, Okiishi, Huebsch, Rothmayer
Grading System	Two Mid-term Exams 45% Quizzes, Homework 15% Final Exam: 40%
Instructors	Dr. Osama S. Algahtani (2A61), email; oaalgahtani@ksu.edu.sa
Date of Review	October, 2020