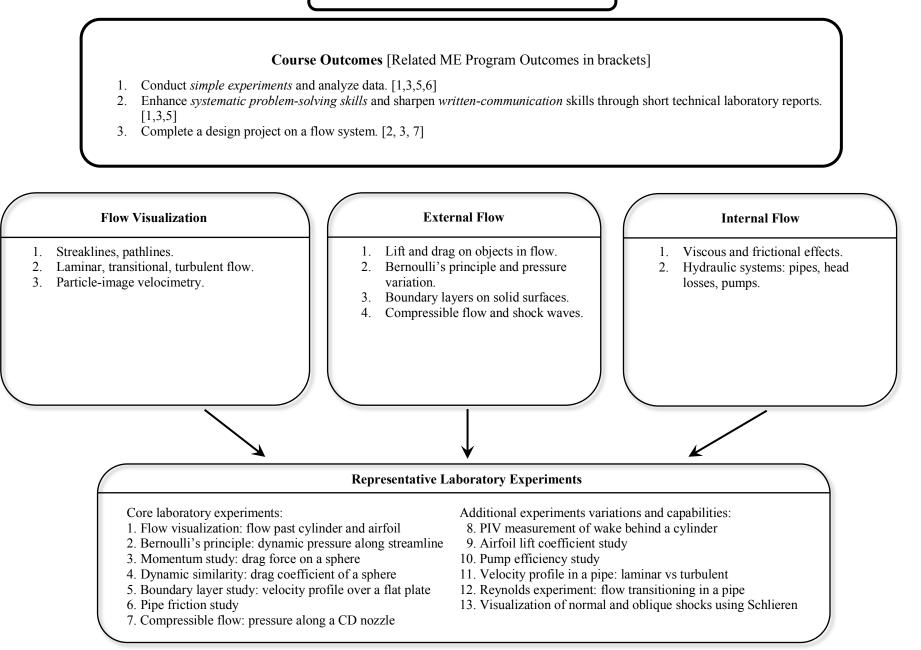
ME 30801 FLUID MECHANICS LABORATORY



COURSE NUMBER: ME 30801	COURSE TITLE: Fluid Mechanics Laboratory (1 credit)
REQUIRED COURSE OR ELECTIVE COURSE: Required	TERMS OFFERED: Fall and Spring
TEXTBOOK/REQUIRED MATERIAL: None. Handouts provided by the instructors.	PRE-REQUISITIES: ME 30800 – Fluid Mechanics
COORDINATING FACULTY: P. Vlachos & C. Wassgren	
COURSE DESCRIPTION: Physical experiments in fluid mechanics. Application of fluid mechanics theory and fundamental concepts to measuring and analyzing fluid systems and flows. A laboratory design project on a flow system reinforces the design process.	 COURSE OUTCOMES [Related ME Program Outcomes in brackets]: 1. Conduct <i>simple experiments</i> and analyze data. [1,3,5,6] 2. Enhance <i>systematic problem-solving skills</i> and sharpen <i>written-communication</i> skills through short technical laboratory reports. [1,3,5] 3. Complete a design projects on a flow system. [2, 3, 7]
ASSESSMENTS TOOLS: • Laboratory reports. • Project reports. • Pre-lab quizzes.	
NATURE OF DESIGN CONTENT: The students participate in a design project lab, in which a fluid flow system is designed to achieve a performance goal.	 RELATED ME PROGRAM OUTCOMES: 1. Engineering fundamentals 2. Engineering design 3. Communication skills 5. Teamwork skills 6. Experimental skills 7. Knowledge acquisition
 PROFESSIONAL COMPONENT: 1. Engineering Topics: Engineering Science - 90% Engineering Design - 10% 	
COMPUTER USAGE : Knowledge of word processing, spreadsheet software, and basic programming (for example, MATLAB) are necessary for laboratory report preparation and homework assignments.	
 COURSE STRUCTURE/SCHEDULE: a. Laboratory Prep – 1 day per week at 50 minutes b. Laboratory – 1 day per week at 100 minutes 	
PREPARED BY: I. Christov, P. Vlachos & C. Wassgren	REVISION DATE: January 28, 2020