EVT 240 Fluid Mechanics

Course Description: A course on engineering properties of fluids including fluid flow, buoyancy, and stability. Topics include Bernoulli's equation and the energy equation; Reynold's number; energy losses; and series, parallel, and open channel flow.

Prerequisites(s): MAT 126 or MAT 151 **Corequisite(s):** No corequisite

Lecture Hours: 3	Lab Hours: 3	Credit Hours: 4
Lab Fee: 105	Supplemental Fee: 0	Purpose:
☐ Transfer Assurance Guide Course (TAG)	☐ Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: □ Web	□ Hybrid	□ Classroom
Semesters Offered: X Fall	X Spring	□ Summer

Course Primary Text:

Title: *Applied Fluid Mechanics*	Edition: 6
Author(s): Robert L. Mott	
Publisher: Prentice Hall	

Supplemental Materials:

Scientific calculator

Course Outcomes:

1	a. An ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities; b. An ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge; c. An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments; d. An ability to function effectively as a member of a technical team; e. An ability to identify, analyze, and solve narrowly defined engineering technology problems;

	f. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature; g. An understanding of the need for and an ability to engage in self-directed continuing professional development; h. An understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity; and i. A commitment to quality, timeliness, and continuous improvement.

Course Topics:

Week 1	Introduction
Week 2	Nature of Fluids
Week 3	Pressure Measurement
Week 4	Nature of Fluids
Week 5	Forces on a Submerged Plane
Week 6	Buoyancy and Stability
Week 7	Pressure Measurement and Buoyancy
Week 8	Flow of Fluids
Week 9	Bernoulli's Equation
Week 10	General Energy Equation
Week 11	Viscosity of Fluids Reynolds Number
Week 12	Laminar and Turbulent Flow
Week 13	Energy Losses Due to Friction
Week 14	Minor Losses
Week 15	Sudden Expansion & Contraction

Methods of Evaluation/Assessment

x Formative: □ Summative

List assessment activities (e.g. quizzes, discussions, essays, research papers, debates, oral presentations, exams):

Test #1	15%
Test #2	15%
Test #3	15%
Final Exam	20%
Lab Reports/Presentation	15%
Homework/ Attendance	20%

Course Keeper: Ann Fallon

Date Completed: 4/11/19