EVT 2200—Fluid Mechanics RH
Three Semester Hours 03/14

PREREQUISITES:

Recommend general chemistry, algebra, and calculus

COURSE OVERVIEW:

Fundamentals of fluid mechanics as applied to surface and groundwater, wastewater, and air emissions management. Topics include basic hydraulics, friction loss, pressure, flow measurement, pump types and characteristics, and schematic interpretation.

METHODS OF COURSE INSTRUCTION:

All material for this course is print-based. Instructor and students communicate and exchange materials through postal mail.

E-PRINT OPTION:

In this course, an option exists to use e-mail to submit your lesson assignments. Your assignment will be returned to you either as an e-mail attachment or as a hard copy sent through the postal mail, depending on the preferences of the instructor and/or program.

TEXTBOOKS AND SUPPLIES:

Mott, Robert L. *Applied Fluid Mechanics*. 6th ed. Prentice-Hall, 2006.
[ISBN 9780131146808]

Other: You will need a hand-held calculator for both the lesson assignments and the examinations. The Casio FX260SLR scientific calculator, or an equivalent model, is recommended.

NUMBER OF LESSONS:

The course has eight lessons complete with graded assignments, and two supervised examinations—a midterm and a final. The lessons are as follows:

- Lesson 1: Fluid Mechanics
- Lesson 2: Pressure Measurement
- Lesson 3: Forces Due to Static Uses
- Lesson 4: Buoyance and Stability
- Lesson 5: Midcourse Examination
- Lesson 6: low of Fluids and Bernoulli's Equation
- Lesson 7: General Energy Equation
- Lesson 8: Pump Selection and Application:
- Lesson 9: Flow Measurement
- Lesson 10: Final Examination

TYPES OF WRITING ASSIGNMENTS:

The writing assignments in Lessons 1–4 and 6–9 consist of short-answer questions that require you to define a term or identify a concept, and problems that require you to use calculation and problem-solving skills. All assignments have clear directions in each lesson.

Please note: for all calculation and problem-solving assignments, you must show work. Each assignment is submitted to your instructor for evaluation and grading.

For this course, there are two supervised exams—a midcourse and a final. The midcourse covers the first four lessons and the final exam covers the last four lessons. You will
have two hours to complete each exam. The exams are comprehensive and include fill-in-the-blank, calculation, and problem-solving questions. All work must be shown on the calculation and problem-solving parts of the exam. Specific information about each examination and the forms necessary to schedule the examinations with a supervisor are included in Lessons 5 and 10.

GRADING CRITERIA:

Your final grade for the course will be weighted on the following factors:

Lesson Assignments	20%
Midcourse Exam	30%
Final Exam	50%