

**ENV 5666-U01 (15181) - WATER QUALITY ENGINEERING**  
**ADDENDUM: ENGINEERING PROJECT - SPRING 2023**  
**POINTS = 30 POINTS - DEADLINES: See below**

**Objective**

The completion of an engineering project that demonstrates the application of theory in solving water quality problems for surface water systems, either individually or in teams (of up to 2 students, upon instructor's approval). Either model development or an application of a computer model, for one or more constituents (i.e., regulated contaminants) of concern, to a setting (i.e., or situation, case) that is identified by the student and approved by the instructor. PhD students may consider, as an alternative to the above, writing a "review paper" on any of the highlighted themes or topics of the course program or others (topic is to be approved by the instructor on a case by case basis); paper should be based on a thorough, *good literature review*.

**Guidelines**

One student or teams of two students will submit a proposal for approval by the instructor and then complete the work and present written and oral reports of professional quality. The written report should be 10-20 pages long, excluding appendices; contents should include, at least, the following items or equivalent (discuss with the instructor, as needed):

- Letter of Presentation
- Cover Page
- Table of Contents
- List of Figures
- List of Tables
- Introduction
- Objectives
- Theory
- Description
- Methodology
- Results and Discussion
- Conclusions
- Recommendations
- References
- Appendices (as necessary)

**Deadlines**

- a) Project Proposal: March 8, 2023, *or earlier* in instructor's mailbox.  
One page: general objective, approach, references, and names of student or team members
- b) Written Report: April 21, 2023, *or earlier* in instructor's mailbox.  
Maximum of 20 points equally based on both the technical soundness and the quality of the report. Each student will also present the instructor with a list of his/her contributions to the project. This list will be in a sealed envelope separate from the written report.

- c) Oral Presentations: April 26, 2022 (5:00 – 7:00 PM).  
Maximum of 10 points equally based on both the effectiveness of the delivery and the quality and completeness of the presentation. Duration: up to **15-25 minutes per project** (to be defined later on) followed by a number of questions. An electronic copy of the oral presentation must be presented to the instructor at the end of the oral presentation.

### **Team Spirit**

- a) In reference to teams, members of the team must responsibly meet, work, and contribute to the team effort throughout the term, meeting all deadlines.
- c) Official deliverables, such as written reports (i.e., in MSWord) and files of oral presentation (in MSPowerPoint), will be retained by the instructor. Students are advised to keep copies of all their works.