ENVE 4920W Environmental Engineering Projects II
Spring 2017 Syllabus

Instructor: Dr. Timothy Vadas, vadas@engr.uconn.edu, 860-486-5552
Class meets: T/Th 2:00-5:00 PM, Castleman 201/212 (See attached schedules)

Course Description:
Students working individually or in groups produce a solution to environmental engineering design projects from data acquisition through preliminary design, cost estimating and final specifications, oral presentation and written reports.

Course Purpose:
This course is meant to transition you from an engineering student to a practicing engineer. You have spent the last four years learning bits and pieces of what it takes to be an environmental engineer. This course ties together much of that knowledge while applying it to a present day problem. The problems are open-ended and the course experience is more about the process than the outcome. You will define your problem, identify and analyze and relevant information, develop a model, evaluate alternative solutions, and design an appropriate solution to meet client, site, regulatory, and economic constraints. You will struggle with finding the appropriate information, working with team members, applying your skills to an actual site with various issues (simplifying assumptions not always applicable), and communicating with advisors, clients, and stakeholders. This is all realistic. Throughout the project you will improve your ability to discern information, address working in team issues, communicate informally and formally, and manage your time. I welcome any discussion on these issues.

Communicating, both orally and written, is a large part of any future job. You will improve your writing and presentation skills through in class discussion and writing review, advisor and instructor comments, peer review and self-assessment. You should end up with a product you are proud of and can show future employers.

Because these projects are inherently practice-oriented, there are a few lectures given by practicing professionals who have extensive experience in the civil or environmental engineering or related profession.

Course Outcomes:
This course contributes to students' ability to:

- Communicate in writing and orally effectively to different audiences
- Work effectively in teams on demanding projects
- Design a system, component or process in an environmental engineering context
- Address relevant regulations in the design process
- Estimate cost of design implementations
- Synthesize skill sets learned in other courses
- Gain knowledge of contemporary issues in environmental engineering

Course Writing Components:
The senior design courses (ENVE 4910W & 4920W) carry a "W" designation, and thus

include an intensive writing component, including instruction, feedback and revision. All writing is double-space, 1" margins, Times New Roman size 12 font. The writing assignments for 4920W consist of:

- Students will write a five-page term paper on a group assigned topic (related to research for the design project).
- Groups will write a complete design report. Each student will write a minimum of 10 pages.

Writing feedback will be provided by the instructor, your peers and your project advisors in order to revise and improve your writing. Due dates for assignments are indicated on the schedule below.

Each student must pass the writing component in order to pass the course.

Grading:

Course Component	% Grade
Term Paper	10
Senior Design Day Poster	10
Poster audio/video presentation	5
Final Oral Report*	15
Final Written Report*	60

Other grade considerations: Attendance at Tuesday seminars/presentations is required. Deductions of half a letter grade will be made if there are more than two unexcused absences
* Individual grades within a group can vary

Resources:

Robert Irish. 2015. Writing in engineering: A brief guide. Oxford University Press, New York, NY.

ENVE 3200
Environmental Engineering Lab

Date	Time	Location	
Jan 17	2:30 PM	CAST204	
Jan 24	2:00 PM	CAST204	
Jan 31	2:00 PM	CAST204	
Feb 7	2:00 PM	CAST204	
Feb 14	2:00 PM	CAST204	
Feb 21	2:00 PM	CAST204	
Feb 28	2:00 PM	CAST204	Strategies for Design Reports (Chapter 4; Irish)
Mar 7	2:00 PM	CAST204	Report draft items 5 and 6 due **March 10**
Mar 14	2:00 PM	CAST204	Spring Break
Mar 21	2:00 PM	CAST204	
Mar 28	2:00 PM	CAST204	Figures/Drawings critique
Apr 4	2:00 PM	CAST204	Report draft due to team; powerpoint and posters
Apr 11	2:00 PM	CAST204	Report draft due to advisor
Apr 18	2:00 PM	CAST204	
Apr 21			Poster due, arrange for printing
Apr 25	2:00 PM	CAST204	Final report due
Apr 28		Gampel	Senior Design Day

ADDITIONALLY

Tuesdays	2:00 PM	Meetings with advisors (as class schedule permits)
Thursdays	2:00-5:00 PM	Reserved for team meetings, meetings with sponsors

CAST114 and 212 are reserved, other rooms are available to reserve (123, 306, SU)

Tuesdays	2:00 or 3:30 PM	Seminars (tentative schedule below)

SEMINARS

Date	Time	Location	Topics
Jan 17	2:00 PM	CAST212	graduation requirements
Jan 24	3:30 PM	CAST212	
Jan 31	3:30 PM	CAST212	
Feb 7	3:30 PM	CAST212	
Feb 14	3:30 PM	CAST212	Legal perspective, tentative
Feb 21	3:00 PM	CAST212	
Feb 28	3:30 PM	CAST212	Jason Coite, Environmental Permitting
Mar 7	3:30 PM	CAST212	
Mar 14	3:30 PM	CAST212	Spring Break
Mar 21	2:00 PM	CAST212	RSMeans Cost estimation
Mar 28	3:30 PM	CAST212	
Apr 4/6	2:00 PM	CAST212	Project Presentations
Apr 11/13	2:00 PM	CAST212	Project Presentations
Apr 18/20	2:00 PM	CAST212	Project Presentations
Apr 25/27	2:00 PM	CAST212	Project Presentations