University of Connecticut
CE 4920W Civil Engineering Projects II - Section 001D
Syllabus – Spring 2020 – Revised March 18, 2020

Instructor: John N. Ivan; **Office:** CAST 332; **Email:** john.ivan@uconn.edu
Class meets: Tu/Th 2:00-3:15 PM, Castleman 210 (See attached schedule)

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

Course Description:
Issues in the practice of Civil & Environmental Engineering: management, business, public policy, leadership, importance of professional licensure, professional ethics, procurement of work, law/contracts, insurance/liability, global/societal issues (e.g., sustainable development, product life cycle), and construction management. Students working singly or in groups prepare proposals for Civil Engineering design projects, oral presentation and written reports.

Course Purpose:
All undergraduate majors in Civil Engineering must take this course. This course covers topics important in preparing students to responsibly engage in the civil engineering profession as required for accreditation of the program. Because these topics are inherently practice-oriented, most lectures are taught by practicing professionals who have extensive experience in the civil engineering profession. Following last semester's course, CE 4900W Civil Engineering Projects I, the students are expected to transit from an engineering student to a practicing engineer. With last few years of learning knowledge and technical skills in the field of civil engineering, the course is to tie together these knowledge and skill preparations to problem solving of real world engineering practices. The open-ended problems and projects need students to identify the problem, communicate with the clients, develop the analysis strategy and model, evaluate and communicate on alternative solutions, achieve solutions to meet the requirements of the client, site, regulatory, economic and environmental constrains. Throughout the project you will improve your ability to discern information, address team working issues, communicate effectively with advisors, team members, clients and all other parties, and manage your personal time and project schedule.

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 is useful for your client.

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 given multiple constraints
- 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 civil engineering

Course Writing Components:
The senior design courses (CE 4900W & CE 4920W) carry a "W" designation, and thus includes 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 CE4920W consist of:
- Poster presentation. 1 page.
- Thank you letters. 1 page.
- Weekly Status Reports. 8 pages total.
- Final design report. 5 pages minimum per student. In the final report, <u>each student's contribution must be clearly indicated.</u>

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
Senior Design Day Abstract and Poster	5
Thank you Letters	5
Weekly Written and Oral Status Reports*	15
Final Oral Presentation*	10
Final Written Report*	65

* Individual grades within a group can vary

Senior Design Day:
Each senior design team will prepare a poster to display at Senior Design Day in Gampel Pavilion on the last day of class. Each team will also prepare a one-page project description for the senior design day book that is distributed to visitors. The description will be due as indicated on the general course syllabus. The draft poster is due on the day indicated on the syllabus.

Thank You Letters:
Each student will write a letter to the project sponsor thanking for their time working with them on the project. This letter should be done in a standard business letter format.

Written status reports:
<u>Each team member</u> must submit a weekly status report in HuskyCT each Tuesday (even on weeks when we do not meet in person). I will create an assignment tool for each progress report each week. Your reports must include the following:
1. Name, Project team number, date

2. Progress schedule graph showing status of each project task, e.g., a GANTT chart (note: only one GANTT chart needs to be submitted for each project team)
3. Progress made in the past week (by yourself, including how it relates to the rest of your team)
4. Challenges that have arisen, potential implications for the project, and proposed solutions
5. Plans for next week for yourself
6. Plans for beyond next week for yourself

Oral status presentations:
Each Tuesday when we meet, each team will give an oral presentation of their project status. The presentation should cover all of the above points for all project members, including the GANTT chart. All team members must participate in the oral presentations, though not every member must participate each week. You may have one member present each week, rotating among your four team members, or you may have everyone participate each week, or you may have two members present each week, alternating back and forth, or any other combination that works for you and involves all team members participating approximately equally. On weeks when we do not meet, no oral status presentation is required. Beginning March 23, 2020, these status presentations will be conducted using WebEx. The WebEx access information is given at the bottom of the course schedule page.

Final Oral Presentation:
You will arrange to have a presentation to your advisor (and me if possible) and sponsor at some point in the last 2-3 weeks of class. I understand not all will be able to make something unique happen (e.g. presenting to a town committee), but this should be with a group of people, e.g. the consulting firm that is sponsoring your project and/or with the community in which your project is located, or the Planning Board for the Town if your sponsor is a Town. All this should be discussed with your advisor and sponsor early in order to plan. Making the presentation using WebEx is encouraged; contact the instructor for scheduling use of his WebEx account.

Final Report:
Each senior design team will prepare a final report, including annotated drawings as appropriate. This is due on the date indicated on the general course syllabus to be submitted on HuskyCT.

Seminars:
There will also be a few seminars scheduled through the semester on topics that will help with completing your projects, such as cost estimating and project management. These will be announced as they are scheduled and will occur during regular class time. When these are scheduled on Tuesdays, there will be no oral status presentation that week, but you must still submit your written status report online. Effective March 23, 2020, these seminars will be delivered online; watch the course announcements for instructions in how to participate.

CE 4920W Schedule

Date	Time	Location	Assignment Due	Topics
Jan 21	2:00 PM	CAST 210	NA	Syllabus, assignments, agendas
Jan 28	2:00 PM	CAST 210	Status Report 1 Thank you letter due	
Feb 4	2:00 PM	CAST 210	Status Report 2	
Feb 11	2:00 PM	CAST 210	Status Report 3	
Feb 18	2:00 PM	CAST 210	Status Report 4	
Feb 25	2:00 PM	CAST 210	Status Report 5 Senior design day abstract due	
Mar 3	2:00 PM	CAST 210	Status Report 6	
Mar 10	2:00 PM	CAST 210	Status Report 7	
Mar 17	2:00 PM	CAST 210	No class	Spring Break
Mar 24	2:00 PM	Webex	Status Report 8	
Mar 31	2:00 PM	Webex	Status Report 9	
Apr 7	2:00 PM	Webex	Status Report 10 Schedule final oral presentation	
Apr 14	2:00 PM	Webex	Status Report 11	
Apr 21	2:00 PM	Webex	Status Report 12	
Apr 23	2:00 PM	CAST 210	Poster due*	Arrange for printing at EII engineering computing lab
Apr 28	2:00 PM	CAST 210	No class	
Apr 30	2:00 PM	CAST 210	Final report due, bound**	
May 1	~~1:00 PM~~	~~Gampel~~	Alternative format TBD	Senior Design Day ~~(setup at noon)~~

*Watch course announcements for instructions regarding the alternative format for Senior Design Day.

**Watch course announcements for instructions regarding submission of hard copy of your final report as they are determined.

WebEx Access: Meeting link: https://uconn-cmr.webex.com/uconn-cmr/j.php?MTID=mae7019883459fef15cea9ea425c7a97f
Meeting number: 642 515 961; Password: TMebzhSK732