

Add Course Request

Submitted on: 2012-11-21 12:25:12

1. COURSE SUBJECT	CE
2. COURSE NUMBER (OR PROPOSED NUMBER)	4900W
3. COURSE TITLE	Civil Engineering Projects I
4. INITIATING DEPARTMENT or UNIT	Civil & Environmental Engineering
5. NAME OF SUBMITTER	John N Ivan
6. PHONE of SUBMITTER	Phone: +1 860 486 0352
7. EMAIL of SUBMITTER	Email: john.ivan@uconn.edu
8. CONTACT PERSON	John N Ivan
9. UNIT NUMBER of CONTACT PERSON (U-BOX)	3037
10. PHONE of contact person	Phone: 860-486-0352
11. EMAIL of of contact person	Email: john.ivan@uconn.edu
12. Departmental Approval Date	10/10/2012
13. School/College Approval Date	11/13/2012
14. Names and Dates of additional Department and School/College approvals	
15. Proposed Implementation Date	Term: fall, Year: 2013
16. Offered before next printed catalog is distributed?	No
17. General Education Content Area	
18. General Education Skill Code (W/Q). Any non-W section?	W
19. Terms Offered	Semester: Fall Spring Year: Every_Year
20. Sections	Sections Taught: 4
21. Student Number	Students/Sections: 75
22. Clarification: 3 sections of 19 each in the fall semester 1 section of 19 in the spring semester	
23. Number of Credits	2 if VAR Min: Max: credits each term
24. INSTRUCTIONAL PATTERN two three hour discussion periods per week.	
25. Will this course be taught in a language other than	No

English?	If yes, then name the language:
26. Please list any prerequisites, recommended preparation or suggested preparation: Prerequisite or Co-requisite: CE 2210; CE 2410; CE 2710; CE 3110; CE 3510; ENVE 2310; and ENVE 3120; Prerequisite: ENGL 1010 or 1011 or 2011 or 3800.	
27. Is Instructor, Dept. Head or Unit Consent Required?	No
28. Permissions and Exclusions: Open only to Juniors or higher Open only to Majors	
29. Is this course repeatable for credit?	No If yes, total credits allowed: Allow multiple enrollments in same term?
30. Grading Basis	Graded
31. If satisfactory/unsatisfactory grading is proposed, please provide rationale : NA	
32. Will the course or any sections of the course be taught as Honors? AsHonors	
33. Additional Details:	
34. Special Attributes:	
35. REGIONAL CAMPUS AVAILABILITY: This is part of a capstone sequence so lower division students at regional campuses would not be able to take this.	
36. PROVIDE THE PROPOSED TITLE AND COMPLETE CATALOG COPY: 4900W. Civil Engineering Projects I Two credits. Two 3-hour discussion periods. Prerequisite or Co-requisite: CE 2210; CE 2410; CE 2710; CE 3110; CE 3510; ENVE 2310; and ENVE 3120; Prerequisite: ENGL 1010 or 1011 or 2011 or 3800. 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.	
37. RATIONALE FOR ACTION REQUESTED This course will be part of a new two course sequence (with CE 4920W) that will replace the existing requirement that studnets take CE 2010 (CEE professional issues seminar) twice and CE 4910W once.	
38. SYLLABUS: Online URL: (https://web2.uconn.edu/senateform/request/course_uploads/jni02001-1353518594-CE 4900W draft syllabus.doc)	

39. Course Information: ALL General Education courses, including W and Q courses, MUST answer this question

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 (see next page). Because these topics are inherently practice-oriented, most lectures are taught by practicing professionals who have extensive experience in the civil engineering profession. Students will also form groups to prepare proposals for a design project they will conduct during the next semester in the follow-on course, CE 4920W Civil Engineering Projects II.

Course Outcomes:

This course contributes to students' acquisition of the following:

1. an understanding of professional and ethical responsibility
2. an ability to communicate effectively
3. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
4. a recognition of the need for, and an ability to engage in life-long learning
5. a knowledge of contemporary issues
6. an ability to design a system, component or process in more than one civil engineering context;
7. an ability to explain basic concepts in management, business, public policy, and leadership; and
8. an ability to explain the importance of professional licensure.

Course Writing Component:

This course carries a "W" designation, and thus includes an intensive writing component, including instruction and feedback. This writing component appears as follows:

- Students will write two three page essays about two of the topics in the early part of the course, then receive feedback on their writing and re-write and re-submit the essays.
- Students will write a proposal for a design project that will be implemented in the subsequent semester. Each student will write a minimum of 10 pages in the proposal; each student's contribution must be clearly indicated.
- Each student must pass the writing component in order to pass the course.

40. Goals of General Education: All Courses Proposed for a Gen Ed Content Area MUST answer this question

41. Content Area and/or Competency Criteria: ALL General Education courses, including W and Q courses, MUST answer this question.: Specific Criteria

- a. **Arts and Humanities:**
- b. **Social Sciences:**
- c. **Science and Technology:**
 - i. **Laboratory:**
- d. **Diversity and Multiculturalism:**
 43. **International:**

e. **Q course:**

f. **W course:**

1. Describe how the writing assignments will enable and enhance learning the content of the course. Describe the page requirements of the assignments, and the relative weighting of the "W" component of the course for the course grade.

-- The students will write two three-page essays on professional issues in civil engineering. Each of these essays will be submitted in two drafts, the second being revised after receiving personal feedback. Writing is the most effective way for students to demonstrate understanding about professional issues.

2. Describe the primary modes of writing instruction in the course (e.g. individual conferences, written commentary, formal instruction to the class, and so on.)

-- at least one class period will be devoted to instruction in writing and communication methods. Students will then receive two individual writing conferences to receive feedback on their three-page essays.

3. Explain how opportunities for revision will be structured into the writing assignments in the course.

-- see answer to question 2

4. State that the syllabus will inform students that they must pass the "W" component of the course in order to pass the course. (Failure to include this clause will result in a request for revisions on your proposal.)

-- this is included in the attached syllabus

42. **RESOURCES:**

Does the department/school/program currently have resources to offer the course as proposed
YES

If NO, please explain why and what resources are required to offer the course.

43. **SUPPLEMENTARY INFORMATION:**

The students will do a lot of writing in this course so it is only fair that they receive W credit for it. We currently have only one W course in our program. Having our students take both W courses in our own program will reduce load on other departments offering W courses and serve the students better by learning to write in their own major subject.

ADMIN COMMENT:

Senate approved W 3.25.2013 // GEOCWapp_120312AP. newW_112812AP.

University of Connecticut

CE 4900W Civil Engineering Projects I

Draft Syllabus

Class meets: Tuesdays and Thursdays 2:00-5:00 PM

See attached class schedule for a list of topics for each class period.

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.

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Course Outcomes:

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

CRITERIA FOR ACCREDITING UNDERGRADUATE PROGRAMS IN CIVIL ENGINEERING (from the Engineering Accreditation Commission of ABET, Inc.)

The elements inside the boxes are addressed and assessed in CE 4900W.

PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

These are expected accomplishments of graduates during the first few years after graduation.

The Civil Engineering undergraduate program educational objectives are to prepare alumni/ae with the knowledge and skills needed to:

- **actively contribute to the practice and profession of engineering** in the public or private sectors in the technical areas of environmental, geotechnical, structural, transportation, and water resources engineering;
- **follow a path that can lead to licensure** as professional engineers who design and construct solutions to civil engineering problems in the natural and built environments; and
- **practice life-long learning** through post-graduate and professional education.

STUDENT OUTCOMES

This is what students are expected to know and be able to do by the time of graduation

- a.) an ability to **apply knowledge of mathematics, science, and engineering**
- b.) an ability to **design and conduct experiments**, as well as to **analyze and interpret data**
- c.) an ability to **design a system, component, or process** to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d.) an ability to **function on multi-disciplinary teams**
- e.) an ability to **identify, formulate, and solve engineering problems**
- f.) an **understanding of professional and ethical responsibility**
- g.) an ability to **communicate effectively**
- h.) the broad education necessary to understand the impact of engineering solutions in a **global, economic, environmental, and societal context**
- i.) a recognition of the need for, and an ability to **engage in life-long learning**
- j.) a knowledge of **contemporary issues**
- k.) an ability to use the **techniques, skills, and modern engineering tools** necessary for engineering practice.

CE PROGRAM CRITERIA (Defined by ASCE)

The program must prepare graduates to ...

- apply knowledge of mathematics through differential equations, calculus-based physics, chemistry and at least one additional area of basic science, consistent with the program educational objectives;
- apply knowledge of four technical areas appropriate to civil engineering
- conduct civil engineering experiments and analyze and interpret the resulting data;
- design a system, component or process in more than one civil engineering context;
- explain basic concepts in management, business, public policy, and leadership; and
- explain the importance of professional licensure.

CE 4900W Class Schedule and List of Topics (Proposed)

Date	Tuesday	Thursday
Week 1	Introduction; Accreditation	Professional Communication
Week 2	Social and Environmental Impacts of Engineering Design	Announcement of potential design project topics
Week 3	Professional and Ethical Responsibility	Essay 1 due; individual writing feedback in class (individual appointments)
Week 4	Construction Risk and Liability	Essay 1 revision due
Week 5	Coordination with Construction Contractors	Essay 2 due; individual writing feedback in class (individual appointments)
Week 6	Assignment of potential design project topics	Essay 2 revision due
Week 7	Attend Presentations of Progress on Design Projects by CE 4920W Students	Attend Presentations of Progress on Design Projects by CE 4920W Students
Week 8	Procurement of work; bidding and selection process (1)	Work on project proposals with groups
Week 9	Procurement of work; bidding and selection process (2)	Work on project proposals with groups
Week 10	Operation of an Engineering Office	Work on project proposals with groups

Week 11	Public Involvement and Interaction	Work on project proposals with groups
Week 12	Engineering in the Public Sector	Work on project proposals with groups; draft project proposals due
Week 13	Leadership and Service in Professional Organizations	Work on project proposals with groups
Week 14	Presentation of Project Proposals by CE 4900W Students	Presentation of Project Proposals by CE 4900W Students; final project proposals due

“Education is what survives when what has been learned has been forgotten.” – B.F. Skinner