Department of Civil and Environmental Engineering
Spring 2020

SYLLABUS: ENVE 3995 Special Topics in Environmental Engineering: Brownfield Practicum

Meeting times Tu & Thu 3.30-4.45 p.m. (weekly team meetings with instructor)
Assigned room: ITE 119

Instructors: Maria Chrysochoou
Contact Information: phone: (860) 486 3594 email: maria.chrysochoou@uconn.edu
Office Hours: Mo 2-4 pm and by appointment Location: CAST 304

Additional instructors
Nefeli Bompoti nefeli.bompoti@uconn.edu Office hours: by appointment Location: CAST 325
Jackie Sidman jaclyn.sidman@uconn.edu (Teaching Assistant)

Course Overview
This course is a service learning course in which students will work with Connecticut communities to assist them with the process of investigating, cleaning up and putting back into use abandoned sites with suspected contamination, also known as brownfields.

Learning Objectives
Service Learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Upon completion of this course, students will be able to:

List of partners and description of work
We have partnered with the following 5 communities:

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<th>Town</th>
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Additional description provided by community partners:

**Saint Luke's Development Corporation in New Haven**

The non-profit corporation is looking to cleanup and redevelop their property in 129 Whalley Avenue to an apartment building with more than 40 units and commercial space on the first floor. The site was previously an automotive shop and has a Phase I & Phase II Environmental Investigation Report and a Hazardous Building Materials Assessment completed. As they are targeting an EPA Cleanup Grant for FY20, an Analysis of Brownfields Cleanup Alternatives (ABCA) will be the first step to a successful application.

**Town of Old Saybrook**

Four properties in Old Saybrook appear on the Federal CERCLIS list and the others have been identified as "Hazardous Waste Facilities" under Section 22a-134f of the CT General Statutes. Our goal is to fully understand which of these (and possibly other) properties meet the
definition of a brownfield, create a map of all brownfield properties and work with stakeholders to use this Brownfield Inventory to identify priority sites for cleanup and redevelopment. The Town of Old Saybrook requests assistance in identifying and mapping brownfield sites within town boundaries because: we do not have a clear understanding of the number of properties meeting the definition of a brownfield; we are concerned about the extent of potential contamination; and we lack the resources on the town staff to conduct such a survey.

**Town of Stratford**

Our most recent Brownfields inventory was completed in 2011. We seek assistance in updating the inventory in order to have a better, focused prioritization of our Towns brownfield sites. We can provide the previous inventory as a starting point.

**City of Norwalk**

Capping an abandoned rail line and converting it to a rail trail connected to the South Norwalk TOD.

**North Haven Economic Development Commission**

The Town of North Haven has experienced positive economic growth over the past ten years. This growth has impacted the number of developable sites available in our community. In order to continue our growth, we need to create a list of sites available for development, some of which may be brownfields. By creating an inventory of brownfields for North Haven, we can then collect data on the sites, determine potential cleanup costs and evaluate redevelopment options for the sites. We can also prepare summaries and presentations, which can be used to prepare grant proposals for EPA or other Federal and State Brownfield grant proposals, as well as, to conduct community outreach.

Using the assistance of the Connecticut Brownfields Initiative (CBI) through the Spring 2020 Municipal Assistance Program (MAP) would be extremely helpful in accomplishing the above project for the Town of North Haven.

**Town of Stonington**

We had an old mill recently collapse and the community has cleaned the site, which sits along the newly designated Wild and Scenic Pawcatuck River. We would like to identify the extent to clean up required and if redevelopment could be feasible. We would welcome the opportunity to work with UCONN students on this endeavor.

**Course Materials**

Links to reference materials and various documents will be provided on the Husky CT site for this course.
Class Policy

Every project will be completed by a group of 2 students. Group assignments will be done the first week of classes with student input (every student will provide their three top choices); final assignment will be done by the instructor.

Students are expected to attend weekly meetings during the Tuesday class time. That time will be utilized to discuss progress, provide feedback and conduct general discussions on brownfield-related topics, with instruction provided on selected topics (e.g., how to conduct a Phase I investigation).

Students are also expected to provide contact information to their group members and respond to group communications within a reasonable time frame (generally 24 hours or less).

Class schedule

Each group will have a weekly 30-minute meeting with the instructors, scheduled within the class window (Tu or Th 330-445).

Class Deliverables

Progress Report: Student groups are expected to provide a written summary of their progress after the spring break. The progress report should build on the previous report, towards the cumulative final report. A template will be provided by the instructors on Husky CT. Each report should describe the objectives, actions and results, as well as any obstacles encountered.

Final Report: The final report should be written as a technical report to the municipality, with the student group acting as consultants. It should include scope of work, activities, results, conclusions and recommendations, as well as data gaps. This is a group deliverable.

Final Presentations

A final presentation will be given along with the final report to municipal officials on the last day of classes.

Class Reflection:

Reflection is a method of inquiry used in service-learning to encourage further understanding of the course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Structured and guided reflective activities and assignments are implemented preservice, throughout the service, and post-service to facilitate ongoing consideration of the experience.

There are two stages of reflection, in the beginning and end of the semester. You may submit your self-reflection in one of two ways:
- Recorded video on Husky CT using the Kaltura tool. Instructions for using the Video will be made available on Husky CT. You may record over a Powerpoint presentation or talking straight to the camera.
- Written document.

In either case, you are asked to address the following questions in each of the two reflections:

1. Why is there a need for your service?
2. How is what you study preparing you to address this issue?
3. If you were in charge of the agency/organization in which you are serving, how would you improve the process of brownfield redevelopment for the town?
4. What challenges are you expecting to encounter? How did this evolve over the semester?
5. What personal qualities (e.g. leadership, communication skills, compassion, etc.) have you developed through service-learning? In what ways do you anticipate these qualities will help you in the future? To help others in the future?
6. What happened during your service experience that made you feel you would (or would not) like to pursue this field as a career?

A rubric for assessing levels of Reflection is provided on Husky CT.

**Grading**

The assessment of the class and the associated grades will be based on four components:

- Progress report 30%
- Final Report 40%
- Class Reflections 20%
- Final Presentation 10%

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