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Environment Corps

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Brownfields Corps Practicum Semester Syllabus (Spring 2023)

Department of Civil and Environmental Engineering
Spring 2023

SYLLABUS: ENVE 3995 / ENVS 3991 Special Topics in Environmental Engineering: Brownfield Practicum

Meeting times
Tu & Thu 3.30-4.45 p.m. (weekly team meetings with instructor)
- Meeting Room E2 322 (Lectures for the 2 first weeks of classes 1/17/2023-1/31/2023)
- Weekly Meetings with the Instructor Team (scheduled upon assignment of projects)

Instructors:
Nefeli Bompoti
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Office hours: By appointment
Location: WebEx https://uconn-cmr.webex.com/meet/nmb14004 or CAST 325

Randi Mendes
email: randi.mendes@uconn.edu
Office Hours: By appointment calendly.com/randi-mendes
Location: Webex: https://uconn-cmr.webex.com/meet/ram15006

Maria Chrysochoou
email: maria.chrysochoou@uconn.edu
Office Hours: Wed 3-5 pm Location: CAST 304

Ogochukwu Okeke (Debbie) (Teaching Assistant)
email: ogochukwu.okeke@uconn.edu
Office Hours: Fri 10-12 Location: WebEx https://uconn-cmr.webex.com/meet/odc21001

External Advisors
Wayne Bugden, PG, LEP
Email: wbugden@oeenviro.com

SketchUp Instructor:
Aaron Hinze
Email: aaron.hinze@uconn.edu

Course Overview

This course is a service-learning based course in which students will work with New England 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:

1. Identify and describe brownfield sites;
2. Develop criteria for brownfields prioritization;
3. Conduct brownfield prioritization lists for towns;
4. Conduct preliminary environmental investigations;
5. Design sampling plans and develop budgets for environmental assessments;
6. Draft community engagement strategies for communities with brownfield sites;
7. Develop redevelopment scenarios for brownfield sites.

List of partners and description of work

We have partnered with the following communities:

Town	Contact	Email	Project Title	Number of students	Main Advisor
Town of Middleborough, MA	Mel Jenks, Grant Writer Office of Economic and Community Development	mjenks@middleboroughma.gov	Site Reuse Assessment for former Public Works	Individual	Dr. Bompoti
Town of Winchester, NH	Karey Miner, Town Administrator	kminer@winchester.nh.gov	Site Reuse Assessment for former Atlantic Paper Mill	Individual	Dr. Bompoti
Town of Killingly, CT	Jill St. Clair, Economic Development Director	jstclair@killinglyct.gov	Review of Environmental Site Conditions for ACME Cotton Mill	Individual	Mr. Bugden
Northern Middlesex Council of Governments	Daniela Garcia Moreno, Sustainability Planner	dgarciamoreno@nmcog.org	Research on brownfield sites in Town of Westford	Group of 2 students	Mr. Bugden

Town of Watertown, CT	Jerry Lukowski, Director of Public Works	lukowski@watertownct.org	Brownfields Inventory for the Town of Watertown	Individual	Dr. Mendes
Town of Avon, MA	William Fitzgerald, Director of Public Works	wfitzgerald@avon-ma.gov	Brownfields Inventory for the Town of Avon	Individual	Dr. Mendes
Town of Milton, MA	Tim Czerwienski, Director of planning and community development	tczerwienski@townofmilton.org	Brownfields Inventory for the Town of Milton	Individual	Dr. Mendes
Town of Derby, CT	Roger Salway, Director of Economic Development	rsalway@derbyct.gov	Site Reuse Assessment for Derby's Downtown Redevelopment District	Group of 2 students	Dr. Bompoti and Mr. Bugden
Town of Foxborough	Matthew Brennan, Director of Public Health	mbrennan@foxboroughma.gov	Record Review and Data Gap Analysis for	Individual	Mr. Bugden
Town of Dalton, MA	Tom Hutcheson, Town Manager	thutcheson@dalton-ma.gov	Brownfields Inventory for the Town of Dalton	Individual	Dr. Mendes
Thermos on the Thames Condominium Association	Gerald Dillenbeck	gdill52@sbcglobal.net	Record Review for the former Mansfield Bleachery	Individual	Dr. Bompoti and Dr. Mendes
City of Caribou, ME	Karen Gorman, Special Projects Coordinato	kgorman@cariboumaine.org	Site Reuse Assessment	Group of 2 students	Dr. Chrysochoou and Dr. Mendes
Town of Rockingham, VT	Gary Fox, Development Director	development@rockbf.org	Site Reuse Assessment for TLR building	Individual	Dr. Bompoti

Course Materials

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

Class Policy

The projects will be completed either individually or a group of 2 students depending on the scope of the project (noted in the table above). Project assignments will be done the first week of classes with student input (every student team will provide their three top choices); final assignment will be done by the instructor.

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

In the first two weeks of the semester, the lecture schedule is the following:

Date	Lecture Topic
Tuesday (1/17)	Introduction/Project review
Thursday (1/19)	Redevelopment scenarios for brownfield sites (Site reuse assessments)
Tuesday (1/24)	Introduction to brownfield inventories
Thursday (1/26)	Environmental data gap analysis
Tuesday (1/31)	Meetings with Instructors
Thursday (2/02)	Meetings with Instructors
Tuesday (2/07)	SketchUp intro session
Tuesday (2/09)	SketchUp intro session

After two weeks, each group will have a weekly 30-minute meeting with the instructors, scheduled within the class window (Tu or Th 330-445). The remaining of the scheduled time students are expected to meet with their group member and conduct work on the project.

Class Deliverables and Important Deadlines

Progress Report: Student groups are expected to provide a written summary of their progress. 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.

Important Deadlines:

Initial Reflection	Monday, January 30th
Progress Report	Friday, March 10th
Final Report	Wednesday, April 28th
Final Presentation	Wednesday, April 28th
Final Reflection	Friday, May 5th

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%

Letter Grade	Grade Point	Percentage
A	4.0	94 – 100%
A-	3.7	90 – 93%
B+	3.3	87 – 89%
B	3.0	83 – 86%
B-	2.7	80 – 83%
C+	2.3	77 – 79%
C	2.0	73 – 76%
C-	1.7	70 – 72%
D+	1.3	67 – 79%
D	1.0	60 – 66%
F	0.0	0 – 59%