

CIE 500, Special Topics
Fall 2009

Ecosystem Restoration Practicum

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Room/time: Norton 216, MWF 3-3:50
(the room and time may change, depending on class requirements)

Text: Schueler, T. 2005. An Integrated Framework to Restore Small Urban Watersheds (Version 2.0). *Urban Subwatershed Restoration Manual Series, Manual 1* (February 2005). Center for Watershed Protection, Ellicott City, MD.

Schueler, T., Kitchell, A. 2005. Methods to Develop Restoration Plans for Small Urban Watersheds. *Urban Subwatershed Restoration Manual Series, Manual 2* (August 2005). Center for Watershed Protection, Ellicott City, MD.

(both texts are available electronically for free download at <http://www.cwp.org/Store/usrm.htm>).

Course description:

This course is intended as an applied practicum course for second year trainees of the Ecosystem Restoration through Interdisciplinary Exchange (ERIE) graduate program in which trainees can integrate the theory and practice of ecosystem restoration. In this course, all students will work together on an ongoing regional project, facilitated by one or many ERIE faculty and external partners, as necessary. The course will be structured to address the ERIE themes of assessment, modeling, and management from an interdisciplinary perspective, as applied to a specific regional project. The course structure will be largely self-organized and open-ended, with students forming subgroups and planning groups as necessary to complete a schedule of deliverables for the course and for the external partners.

Project overview:

The project that will be worked on by the team of students in this course is the development of a subwatershed restoration plan for a local oxbow wetland site in the town of West Seneca. The development of this watershed plan requires the coordination of technical, political, and socioeconomic expertise. Students will work closely as necessary with the project sponsor (Buffalo Niagara Riverkeeper) and develop the restoration plan according to guidelines and methodologies detailed in the texts. Students will be expected to produce documents of sufficient quality for submission to the project's external sponsor(s); the course instructor will serve in the role of facilitating access to expertise, tools, and technology, as necessary for the timely completion of the project.

Prerequisites for the class are prior ERIE courses in ecosystem restoration ("Principles" and "Practice" courses) and permission of the instructor or host academic department. Regular participation in class work activities will be expected.

Basis for Grading:

Individual Assignment (Task 1)	15%
Small group reports	40%
Final report and presentation	20%
Class participation	25%

The class participation component is based on the instructor's and peer's assessment of individual effort and contribution to group work. Considerations include the following: attendance at all scheduled sessions; participation in discussions and planning sessions; group division of labor; formal and informal evaluations of relative group effort provided by each group member (including self-evaluations); careful preparation of written and presentation materials; and evidence of significant work outside of scheduled work sessions.

Overview of Tasks (more details will be forthcoming)**Task 1: Individual essay**

Each student will complete an individual paper designed to enhance understanding of the watershed restoration planning process and the role of the student's field of expertise in that process. This project will be a 5-10 page essay exploring central concepts to watershed planning and will include a brief review of relevant concepts on watershed science and policy from recent publications in relevant academic fields.

Task 2: Design objectives (small group)

Students will divide up into subgroups for the purpose of focusing on a particular sector (physical, biological, or social considerations) section of the watershed plan. The Task 2 report will resemble a proposal inasmuch as it will focus on detailing the goals and objectives for their part of the overall watershed plan and the methods by which that component will be completed or accomplished. The report for this task should detail key components of sub-tasks, including a schedule of milestones and a division of labor for group activity. Preliminary data and site analyses should be included as necessary. Completion of this task will necessitate coordination with the whole group as part of the planning process. This task will include the preparation of posters by each subgroup to be exhibited at public meetings of stakeholders upcoming in October.

Task 3: Final Watershed Plan (whole group)

Following completion of subtasks as outlined in Task 2, students should be prepared to work together to assemble the final watershed plan. This plan will include the results from Task 2 with full analysis and synthesis for the detailing of recommendations for the development and preservation of the watershed. The plan should also include an analysis of the economic costs and benefits of preservation and/or restoration of the project site. The plan shall be prepared to high-quality production and editorial standards for submission to external partners and interested parties.

Task 4: Final presentation (whole group)

In conjunction with Task 3, the entire group will work together to prepare a single presentation that summarizes the site and evaluates the options for restoration of the oxbow watershed within the context of the plan. The final oral presentation can be given during the scheduled final exam period, and will be open to the public and invited stakeholders.