ENR 4900.01 Environment and Natural Resources Management:
Capstone Experience

(3 credit hours)

Collaborative environmental decision-making

Fall 2018

Instructor:	**Teaching Assistant**:
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Office: 320E	Office hours location: Parker Lobby
Office hours: Thursdays 10-11 and by appointment	Office hours: Mondays 2-3:30pm

Class meeting time and place:
Mondays and Wednesdays, 3:55pm to 5:15pm, 245 Kottman Hall

Course Description and Goals

In this section of 4900.01, students will gain hands-on experience contributing to multi-stakeholder decision-making processes. When diverse groups of people are involved in decisions about environmental policy (for example, how to manage a park, or how to respond to a new invasive species), they often bring different values and goals to the table. Understanding these values and goals is often crucial making a good decision, or for making a decision at all, and this capstone section will focus on how to facilitate collaborative decision-making processes through approaches such as participatory mapping, value mapping, and outreach informed by stakeholder analysis. Specifically, students—in interdisciplinary teams—will gain experience applying these approaches in real environmental decision-making settings. Teams will then develop a set of recommendations designed to improve the specific decision-making at hand. In the process, they will gain skills and training relevant to diverse careers such as environmental consulting, conflict mediation, and facilitation.

Learning objectives:

1. Apply skills and knowledge from prior courses to understand a complex real-world environmental decision-making process.
2. As a member of a team, develop and carry out an original project designed to facilitate collaborative environmental decisions.
3. Identify career opportunities and communicate aspirations and skills to prospective employers.

Course Format and Expectations

This course will be divided into three parts. In the first part, students will hone skills for identifying and landing rewarding jobs. A particular focus will be developing employment materials and building professional networks. The second part of the course will pivot to collaborative environmental decision-making, and students will gain hands-on experience in a variety of activities that can contribute to environmental problem-solving (e.g., stakeholder analysis). Simultaneously, students will work together in teams to design and carry out projects to facilitate collaborative decision-making process. In the third part of the course, teams will create products based on their findings (e.g., recommendations in written reports or other formats). Throughout the course, guest speakers will share experiences, perspectives, and expertise on engaging diverse environmental stakeholders and communicating science to policy-makers and the public.

Readings: While there is no textbook for the course, certain resources will be made available through Carmen. These include newspaper articles, guides (e.g., tutorials), background on decision-making processes, and other resources that are essential for acquiring and applying the skills necessary for completing the capstone project.

Participation: Participation is particularly important in this course. Students are required to not only attend all classes (see below) but also contribute constructively to class activities and discussions. Participation will be evaluated both by the instructor and by peers (capstone project team members).

Attendance: Attendance is required. If you must miss a class, prior notification is necessary. If you miss class due to an emergency, notify me as soon as possible.

Late assignments: The maximum grade of written assignments will decrease by 5% for each day late, including weekends.

Communications: Notifications and updates will be communicated through Carmen. If you need to communicate with me or the TA by email, please include "ENR 4900.01" in the subject. You may also communicate with me or the TA at the beginning or end of class, or by scheduling a meeting.

Student Evaluation (Grading)

Individual work
Informational interview	10%
Professional portfolio	10%
Participation	10%

Group Project
Project proposal	10%
Project draft	20%
Peer assessment	10%
Final Project	30%

Grading scheme

93-100%	A	80-82	B-	66-69	D+
90-92	A-	77-79	C+	60-65	D
87-89	B+	73-76	C	<60	E
83-86	B	70-72	C-		

Informational interview (10%): Students will identify several organizations where they believe they would enjoy working, familiarize themselves with the organizations, and will reach out to a current member of at least one of the organizations to conduct an informational interview. Students will then write up their reflections of 1) their experience reaching out to interviewees, and 2) what they learned during the interview. Instructions for conducting the interview and for the write-up will be provided on Carmen and in class.

Professional portfolio (10%): Each student will develop a Resume and Cover Letter that may be adapted to real job opportunities. Students may "aim" their cover letters to organizations where they conducted informational interviews or may identify a different organization and hypothetical job. Instructions for the format and core components of resumes and cover letters will be provided on Carmen and in class.

Participation (10%): Because much of this course is student-led, participation is crucial. Students' participation grades will account for attendance and active involvement in the class.

Project proposal (10%): The project proposal will be a relatively short (maximum 5 page) document that outlines the prospective scope of the final project. Details on the project itself, as well as associated assignments (the proposal and draft), will be presented in class and provided on Carmen. The first of such assignments is the project proposal. Working in teams, students will develop and refine ideas for a project that can contribute to collaborative problem-solving. In addition to describing the proposed scope and goals of the project, the proposal will also identify the role(s) of each team member.

Project draft (20%): The project draft will include all components of the final project. The scope of work completed (e.g., collection of information, analysis), as well as discussion of the implications of findings for policy-makers and other stakeholders, should reflect feedback on the project proposal. While the content and organization of each group's project will depend on the scope of the project/product itself, certain core components will be described in class and on Carmen.

Peer assessment (10%): Students will anonymously evaluate the participation of other members of their groups. These assessments will provide opportunities for students to get credit for contributions to the group effort. The criteria of these assessments will be described in class and on Carmen.

Final project (30%): The final project includes the final draft of the project write-up, a presentation, and an individual report. The final draft should account for feedback on the earlier draft. Groups will present their findings and recommendations during the Environmental Professional Network Breakfast Program on December 4. In their individual reports, students

will reflect on their experiences developing and carrying out the group project as well as how they plan to draw upon these experiences (and potentially the project itself) in near-term careers. Each of the three final project components will be described in class and on Carmen.

All written assignments will be submitted to Carmen by 11:55 pm on the day they are due.

University Resources: A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other, and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the quarter are encouraged to contact the OSU Counseling and Consultation Service (614-292-5766; www.ccs.osu.edu) for assistance, support and advocacy. This service is free and confidential.

Academic integrity: Students are expected to uphold the Code of Student Conduct (http://studentaffairs.osu.edu/csc/). This class follows policies set by the OSU Committee on Academic Misconduct (http://oaa.osu.edu/coam.html). Please see me if you have any questions about what constitutes academic misconduct.

Accommodating students' learning: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated. Students should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; http://www.ods.ohio-state.edu/.

Career services: I encourage you to take advantage of resources and opportunities offered by the School of Environment and Natural Resources Career Services Office (https://senr.osu.edu/undergraduate/career-services) and to get engaged with the School of Environment and Natural Resources Environmental Professionals Network (https://epn.osu.edu/).

Tentative Schedule of Topics and Assignments
(To be updated throughout the semester)

	Week	Date	Activities	Due dates
	Part 1: Professional development and project planning			
1	1 W	Aug-22	Introductions; overview of syllabus, course, and projects; and survey of student interests	
2	2 M	Aug-27	Professional development I (expanding your network)	
3	2 W	Aug-29	Guest Lecture – Dr. Joe Campbell, Director, Environmental Professionals Network	
	3 M	Sep-3	No class – Labor Day	
4	3 W	Sep-5	Professional development II (creating a portfolio)	
5	4 M	Sep-10	Project development brainstorm	
6	4 W	Sep-12	Team assignments and topics	Professional portfolio
	Part 2: Building a collaborative problem-solving toolkit			
7	5 M	Sep-17	Stakeholder analysis I (mental mapping)	Informational interview report
8	5 W	Sep-19	Stakeholder analysis II (collaborative networks)	
9	6 M	Sep-24	Proposal development	
10	6 W	Sep-26	*Guest Lecture:* government-led collaborative decision-making	Project proposal
11	7 M	Oct-1	Resolving environmental disputes	
12	7 W	Oct-3	*Guest Lecture:* negotiation/mediation/facilitation	
13	8 M	Oct-8	Outreach and gaining community buy-in	
14	8 W	Oct-10	*Guest Lecture:* Communities as stakeholders	
15	9 M	Oct-15	Communicating science to non-scientists	
16	9 W	Oct-17	*Guest Lecture:* Science communication in practice	
	Part 3: Making collaborative work			

17	10 M	Oct-22	Project development	
18	10 W	Oct-24	Project development	
19	11 M	Oct-29	Project development	
20	11 W	Oct-31	Project development	
21	12 M	Nov-5	Project development	
22	12 W	Nov-7	Project development	
	13 M	Nov-12	No class – Veteran's Day	
23	13 W	Nov-14	Lightning talks	Project draft
24	14 M	Nov-19	Project development	
	14 W	Nov-21	No class – Thanksgiving	
25	15 M	Nov-26	Project development	
26	15 W	Nov-28	Project development	
27	16 M	Dec-3	Practice demonstrations and presentations	Peer assessments due
28	16 W	Dec-5	Career models for contributing to collaborative environmental problem solving	Final project (group project and individual report)