

CFAES SCHOOL OF ENVIRONMENT & NATURAL RESOURCES

ENR 4900.01

Environment and Natural Resource Management: Capstone Experience—
Collaborative Environmental Decision-Making

Autumn 23 (full term)

3 credit hours

COURSE OVERVIEW

INSTRUCTOR:

Esther DeBusk, MA (she/her)

Debusk.5@osu.edu

Office Hours: by appointment

Office: Kottman 384

Set up a meeting anytime:

go.osu.edu/meetwithesther

TA: Iresha Jayasinghe

jayasinghe.9@buckeyemail.osu.edu

Office hours: by appointment

TA: Rosemary Koontz

Koontz.110@buckeyemail.osu.edu

Office hours: by appointment

COURSE MEETINGS:

Mondays and Wednesdays, 11:10 AM-12:30 AM, Kottman 370

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 crucial for 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 process at hand. In the process, they will gain skills and training relevant to diverse careers such as environmental consulting, conflict mediation, and facilitation.

COURSE LEARNING OUTCOMES:

By the end of this course, you will:

- Apply skills and knowledge from prior courses to contribute to a complex real-world environmental decision-making process.
- As a member of a team, develop and carry out an original project designed to facilitate collaborative environmental decisions.
- Identify career opportunities and how to best communicate aspirations and skills to prospective employers.
- Gain experience and skills to prepare for collaborative work in a professional setting.

COURSE FORMAT

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.

COURSE MATERIALS AND TECHNOLOGIES

Readings

While there is no textbook for the course, certain resources will be made available through Carmen. These include videos, 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.

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- Self-Service and Chat support: <http://ocio.osu.edu/selfservice>
- Phone: 614-688-HELP (4357)
- Email: 8help@osu.edu
- TDD: 614-688-8743

Should in-person classes be canceled, we will meet virtually via Zoom during our regularly scheduled time. I will share any updates via Carmen.

COURSE SCHEDULE

Note: dates and topics are subject to change

Week	Date	Class Topic	Due
1	23-Aug	Course introductions, syllabus, professionalism and communication in this course	
2	28-Aug	Workshop: Project introductions, example projects, project management	Introduction Survey (due before class)
2	30-Aug	Project groups, proposal development	
3	4-Sep	Labor Day--no class meeting	
3	6-Sep	Project groups, proposal development	
4	11-Sep	Workshop: Using information and communicating science, creating engaging visual information, using AI in professional settings	
4	13-Sep	Project groups	
5	18-Sep	Workshop: Defining products and developing work plans, tools for product development, project management part 2	
5	20-Sep	Project groups	Project Proposal
6	25-Sep	Workshop: feedback, peer review, and collaboration	
6	27-Sep	Project groups	
7	2-Oct	Workshop: resumes & cover letters	
7	4-Oct	Project groups	Product Planning Worksheet
8	9-Oct	Progress reports	

8	11-Oct	Project groups	
9	16-Oct	Guest speaker; Workshop: professional development, professional organizations, certifications	
9	18-Oct	Project groups	
10	23-Oct	Workshop: peer review & feedback, growth mindset as practice	
10	25-Oct	Project groups	
11	30-Oct	Guest speaker: Ryan Winston; Workshop: stakeholder overview	
11	1-Nov	Project groups	Resume Submission, Career Meeting Complete
12	6-Nov	Workshop: interview skills	
12	8-Nov	Project groups	Project Report Draft
13	13-Nov	Progress reports	Peer Review Project Report Draft
13	15-Nov	Project groups	Poster Draft
14	20-Nov	Workshop: presentation skills & networking	
14	22-Nov	No class TG break	
15	27-Nov	Final progress reports, presentation practice	
15	28-Nov	Optional--Extra Credit: Mock Public Meeting	Extra Credit: Mock Public Meeting Stakeholder Profile
15	29-Nov	Project presentations part 1	Final Report, Final Products, Final Poster, Final Presentations (half the class)
16	4-Dec	Project presentations part 2	Final Presentations (the other half)
16	5-Dec	4-6 pm: Presentations at 4-H Center EPN Event	
16	6-Dec	Class closing	Capstone Project Peer Assessment
16	by December 14th		Course Reflection, Final Group Meeting with Project Partner Complete

ASSIGNMENTS

Assignments	Total Points	Due Date
Introduction Survey (Individual)	3	8/25 (Friday)
Project Proposal (Group)	10	9/13
Product Planning Worksheet (Group)	5	9/27
Career Meeting (Individual)	3	11/1
Resume Submission (Individual)	5	11/1
Project Report Draft (Group)	10	11/8
Project Report Draft Peer Review (Individual)	5	11/13
Poster Draft (Group)	3	11/15
Final Project Report and Products (Group)	20	11/29
Final Presentation (Group)	10	11/29 or 12/4
Final Poster (Group)	6	11/29
Peer Assessment (Individual)	10	12/6
Project Partner Assessment (Group)	5	12/14
Course Reflection (Individual)	5	12/14
Total	100	
Extra Credit		
Mock Public Meeting with Civil Engineering Capstone		

See assignment descriptions (below) for an overview. Details can be found on Carmen.

GRADING SCALE

A (100-93%); A- (92-90%); B+ (89-87%); B (86-83%); B-(82-80%); C+ (79-77%); C (76-73%); C-(72-70%); D+ (69-67%); D (66-60%); E (below 60%)

ASSIGNMENT DESCRIPTIONS

Introduction Survey: This survey collects information that is helpful to us as we get to know you and as we tailor this course to your interests and skills.

Project Proposal: 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. 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.

Product Planning Worksheet: Detailed plan of the final “products” of your project, meaning the items that your group will give to the stakeholder upon completion of your project. Full details on the planning process are included in Carmen on the worksheet.

Career Meeting: Students will schedule and attend a 30-minute appointment with the SENR/CFAES Career Development Office to discuss next steps or skills for career goals.

Resume Submission: Using the information provided at the in-class workshop on resumes, students will submit a resume for review by the SENR/CFAES Career Development Office. The goal is for students to leave this class with a completed and useable resume, so this resume should reflect the format of the employers specific to the student (government job resumes will look different than academic resumes or professional resumes, etc.) Students will receive feedback from the Career Development Office on this assignment.

Project Report and Products Draft: 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 partners and stakeholders, should reflect feedback received on the project proposal, products worksheet, and progress reports.

Project Report Draft Peer Review: Students will provide feedback and review of other capstone group’s Project Report Drafts. This provides the opportunity to practice giving and receiving feedback on professional documents as well as gain insight into processes and strengths in the other groups.

Poster Draft: Groups will submit a draft of the poster that will be used to showcase their project at the EPN event on December 5th.

Final Report and Products: The final report includes the final version of the project group report and products. The final report and products should account for feedback on the earlier draft. Full descriptions can be found on Carmen and will be discussed thoroughly in class.

Final Presentation: The final presentations will take place over the course of two dates, November 29th and December 4th. Groups will present their work to the class and (ideally) their

project partners and answer questions from attendees. Full descriptions can be found on Carmen and will be discussed thoroughly in class.

Peer Assessment: Students will anonymously evaluate the participation of other members of their team. 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.

Project Partner Assessment: Partners will provide feedback on the quality of work, communication throughout the semester, and potential for their organization to utilize the products developed by the group.

Course Reflection: Upon completing the project, course assignments, and meetings, students are asked to reflect upon what they gained from their experience in the class.

All written assignments will be submitted to Carmen by 11:59 pm on the day they are due unless otherwise noted.

LATE ASSIGNMENTS

The maximum grade of written assignments will decrease by 5% for each day late, including weekends. Late penalties will not be applied in cases of emergencies or other excused absences if documentation is provided.

POLICIES AND IMPORTANT INFORMATION

COMMITMENT TO AN ENGAGED, DIVERSE, AND INCLUSIVE LEARNING ENVIRONMENT*

All individuals participating in this course have a responsibility to create and maintain an environment conducive to learning. A learning-friendly environment is one that is free of distractions, engages all participants in the learning process, and does not demean or dehumanize an individual or group. Participants therefore will:

- Arrive on time and remain for the duration of the class
- Show respect of others in the course through listening effectively and responding thoughtfully and sensitively
- Use appropriate language and behavior that does not demean or dehumanize any person or group of persons, whether or not such persons are present
- Contribute to the learning of one another in the course by being prepared for class experiences and engaging in and contributing to the learning in the course

This class has been designed with the intention to serve students from all diverse backgrounds and perspectives, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. The course materials and activities are designed to be respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, culture, and political affiliation. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach their own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Feedback related to making this course more inclusive is encouraged and valued. Please let instructors know if you have thoughts on how we might improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any class meetings conflict with religious events, please let instructors know so that we can make arrangements for you.

[* Adapted from Holley Belch, Michael C. Young, and Susan R. Jones]

LAND ACKNOWLEDGEMENT

We Are Guests on This Land

The School of Environment and Natural Resources holds great respect for the land and original peoples of the area where our campus is located. The land that The Ohio State University occupies is the ancestral and contemporary territory of the Shawnee, Potawatomi, Delaware, Miami, Peoria, Seneca, Wyandotte, Ojibwe, and Cherokee peoples. The university resides on land ceded in the 1795 Treaty of Greenville and the forced removal of tribes through the Indian Removal Act of 1830. As we strive to honor the resiliency of these tribal nations and recognize the historical contexts that have and continue to affect Indigenous peoples, we recognize that we are visitors and hope to become gracious guests that honor Indigenous past, present, and future.

We also explicitly recognize that this acknowledgement is only a small step in assuming the responsibilities and obligations of being honorable guests that include research, reflection, and developing relationships of reciprocity with Indian peoples.

Through our teaching, research, and outreach endeavors we commit to justice in all its forms, including working to deconstruct colonial ideologies of the superiority and privilege of Western thought and approaches.

To learn more about tribal connections to the lands on which we find ourselves, the dispossession of lands and removal of Native Americans and Indigenous peoples, and ways to

connect with tribal partners today in efforts that move beyond land acknowledgements, visit the following resources:

- [Native Land](#) – Discover tribal connections to the land you are on
- [Land-Grab Universities](#) - Discover the role of land-grant institutions like The Ohio State University in profiting from the dispossession and selling of Native lands
- [Grappling with the Land Grant Truth – OSU Inspire Podcast](#)
- [Native Land](#) Beyond A Land Acknowledgement Panel – Listen to ideas shared by Native and Indigenous scholars at OSU about how to honor Native peoples through direct action
- [OSU's Multicultural Center – Native American/Indigenous Community](#) – Connect with students, faculty, and staff who foster a supportive campus environment, affirming of the traditions and cultures of Native peoples.
- [Moving Beyond Land Acknowledgements – StudentAffairsNow.com Podcast](#)

Here are a few resources on the history of OSU's Columbus campus, although the perspectives on this history are quite limited. If you have additional resources we could include on campus history from other perspectives, especially from Indigenous or marginalized identities, please share with the instructors.

- [OSU eHistory](#)
- [WOSU Documentary on the University District](#)
- [Campus Timeline](#)

COMMUNICATIONS, INSTRUCTOR FEEDBACK AND RESPONSE TIME

Notifications and updates will be communicated through Carmen and/or in class. You may communicate via email, at the beginning or end of class, by attending office hours, or by scheduling a meeting. We are providing the following list to give you an idea of intended availability throughout the course. Remember that you can call 614-688-HELP at any time if you have a technical problem.

- Grading and feedback: You can generally expect feedback within 10 days.
- E-mail: We will reply to e-mails within 48 hours on school days.

PARTICIPATION AND ATTENDANCE

Student participation requirements

Participation is important, and students are expected to contribute constructively to class activities and discussions. Your participation will contribute to everyone's understanding of topics.

Student attendance requirements

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 is required. If you must miss a class, please notify me as soon as possible. If you must miss a stretch of classes for any reason, please let us know as soon as possible so that we can work with you (and your capstone group) to develop accommodations.

Career services

We 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/>).

OHIO STATE'S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If instructors suspect that a student has committed academic misconduct in this course, they are obligated by University Rules to report suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact course instructors.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

ACADEMIC INTEGRITY POLICIES FOR THIS COURSE

- Written assignments: Your written assignments, including discussion posts, should be your own original work. You are encouraged to ask a trusted person to proofread your assignments before you turn them in, but no one else should revise or rewrite your work.
- Reusing past work: In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you have explored in previous courses, please discuss the situation with us.
- Collaboration and informal peer-review: The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you are unsure about a particular situation, please ask ahead of time.

COPYRIGHT DISCLAIMER

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

STATEMENT ON TITLE IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

YOUR MENTAL HEALTH

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily

activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you find yourself feeling isolated, anxious or overwhelmed, please know that there are resources to help: ccs.osu.edu. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24 hour emergency help is also available through the 24/7 National Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

REQUESTING ACCOMMODATIONS

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let instructors know immediately so that we can privately discuss options. To establish reasonable accommodations, instructors may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let instructors know immediately. Those testing positive for COVID-19 should refer to the [Safe and Healthy Buckeyes site](#) for resources. Beyond five days of the required COVID-19 isolation period, instructors may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.”

FIELDWORK SAFETY

Safety during fieldwork is the prime responsibility of the individuals undertaking the fieldwork. Safe conduct extends to journeys to and from field locations. Responsible and careful behavior is thus an obligation for all students at all times. Infringement of this safety code or indulging in any activity which is prejudicial to safety during a field course, will be regarded as a very serious matter.

Specifically, all students must:

1. Obey all safety instructions given by the course convener and relevant land/property owners and managers.
2. Wear appropriate clothing for the type of weather and terrain likely to be encountered. For any research in which fieldwork is conducted in the countryside the following guidelines should be followed. Wind and waterproof outer jacket and trousers are necessary. Walking boots (not Doc Martins!) should be worn for work off surfaced roads or paths. An appropriate number of layers of warm clothing and waterproofs should be taken.
3. When working in hot and sunny conditions, ensure you have a plenty supply of fluid, and take care to avoid exposure to strong sun – wear sunscreen and a hat
4. If instructed to do so, wear required personal protective equipment in the field until such time as the responsible party instructs that it is safe to remove them.
5. Report any injury or illness to the course convener immediately, however trivial.

6. Inform the course convener about any prior illness or medical condition which might reoccur during the fieldwork. It is the student's responsibility to ensure that they have an up-to-date record of vaccination cover (such as for tetanus).
7. Conduct themselves properly and with respect for others whilst in field residences or host organization. Anti-social behavior is likely to lead to deterioration in safety and will not be tolerated.
8. Follow rules and guidelines given by property owners or managers.