SYLLABUS: ENR 4900.01
Environment and Natural Resources Management: Capstone Experience - Collaborative environmental decision-making
Fall 2021

COURSE OVERVIEW

Instructors

Dr. Matt Hamilton (hamilton.1323@osu.edu)
Office hours: Thursdays at 10:00-11:00 am and by appointment
Office: 320E Kottman Hall and Zoom

TA: Dax Fisher-Garibay (fisher-garibay.1@buckeyemail.osu.edu)
Office hours: By appointment
Office: TBD and Zoom

Course meetings

Days and time: Mondays and Wednesdays, 3:55pm to 5:15pm
Location: 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 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.

**Credit hours**

3

**Course learning outcomes**

By the end of this course, you will:

- Apply skills and knowledge from prior courses to understand 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 communicate aspirations and skills to prospective employers.

**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.

**COVID HEALTH AND SAFETY REQUIREMENTS**

The following guidelines are adapted from the Safe and Healthy Buckeyes website: All students, faculty and staff are required to wear masks in classrooms and other shared indoor spaces, regardless of their vaccination status. Individuals should not eat in classrooms. Individuals can take an occasional drink but should take masks off only as necessary.

**COURSE MATERIALS AND TECHNOLOGIES**

**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.

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](http://ocio.osu.edu/selfservice)
- **Phone**: 614-688-HELP (4357)
- **Email**: 8help@osu.edu
- **TDD**: 614-688-8743

GRADING AND FACULTY RESPONSE

How your grade is calculated

<table>
<thead>
<tr>
<th>Assignment (G=group assignment)</th>
<th>Percent of grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project proposal (G)</td>
<td>15</td>
</tr>
<tr>
<td>Project draft (G)</td>
<td>20</td>
</tr>
<tr>
<td>Peer assessment</td>
<td>10</td>
</tr>
<tr>
<td>Final Project group report (G)</td>
<td>10</td>
</tr>
<tr>
<td>Final Project group presentation (G)</td>
<td>10</td>
</tr>
<tr>
<td>Final Project individual report</td>
<td>10</td>
</tr>
<tr>
<td>Mock public meeting</td>
<td>15</td>
</tr>
<tr>
<td>Participation</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

See assignment descriptions, below, for details and due dates.

Assignment descriptions

Project proposal (15%): 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.

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 policymakers 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 group report (10%), a group presentation (10%), and an individual report (10%). The final draft should account for feedback on the earlier draft. 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.

**Mock public meeting (15%):** Students will prepare for and participate in a mock public meeting on proposed interventions to address water quality issues and will reflect upon the experience. This assignment also provides opportunities to work with environmental engineers and to gain interdisciplinary experiences.

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

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

**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.

**Grading scale**

93–100: A  
90–92.9: A-  
87–89.9: B+  
83–86.9: B  
80–82.9: B-
Communications, faculty feedback and response time

Notifications and updates will be communicated through Carmen and/or in class. If you need to communicate with me by email, please include “ENR 4900.01” in the subject. You may also communicate with me at the beginning or end of class, or by scheduling a meeting. I am providing the following list to give you an idea of my 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**: I will reply to e-mails within 24 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 me know as soon as possible so that I can work with you (and your capstone group) to develop accommodations.

OTHER COURSE POLICIES AND INFORMATION
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/).

Academic integrity policy

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 me.

- **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.

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 I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my 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 me.

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)

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.

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, Kellie Brennan, 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 or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. 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.

Diversity

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. 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 his or her 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.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I 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. SLDS contact information: slds@osu.edu; 614-292-3307, 098 Baker Hall, 113 W. 12th Ave.
<table>
<thead>
<tr>
<th>Class</th>
<th>Week</th>
<th>Date</th>
<th>Activities</th>
<th>Due dates</th>
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<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>W Aug-25</td>
<td>Guest presentation: Jessica D'Ambrosio (The Nature Conservancy)</td>
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<tr>
<td>2</td>
<td>2</td>
<td>M Aug-30</td>
<td>Introductions; overview of syllabus, course, and projects; and survey of student interests</td>
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<tr>
<td>3</td>
<td>2</td>
<td>W Sep-1</td>
<td>Guest presentation: Jennifer Fish (Franklin Soil and Water Conservation District)</td>
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<td>2</td>
<td>2</td>
<td>M Sep-6</td>
<td>No class – Labor Day</td>
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<td>4</td>
<td>3</td>
<td>W Sep-8</td>
<td>Project brainstorming exercise</td>
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<tr>
<td>5</td>
<td>4</td>
<td>M Sep-13</td>
<td>Workshop: Proposal development</td>
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<tr>
<td>6</td>
<td>4</td>
<td>W Sep-15</td>
<td>Workshop: Proposal development</td>
<td></td>
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<tr>
<td>7</td>
<td>5</td>
<td>M Sep-20</td>
<td>Workshop: Proposal development</td>
<td>Project proposal</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>W Sep-22</td>
<td>Using information and communicating science</td>
<td></td>
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<tr>
<td>9</td>
<td>6</td>
<td>M Sep-27</td>
<td>Workshop: Project development</td>
<td></td>
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<tr>
<td>10</td>
<td>6</td>
<td>W Sep-29</td>
<td>Defining products and developing workplans</td>
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<tr>
<td>11</td>
<td>7</td>
<td>M Oct-4</td>
<td>Workshop: Project development</td>
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<tr>
<td>12</td>
<td>7</td>
<td>W Oct-6</td>
<td>Workshop: Project development</td>
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<tr>
<td>13</td>
<td>8</td>
<td>M Oct-11</td>
<td>Workshop: Project development</td>
<td></td>
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<tr>
<td>14</td>
<td>8</td>
<td>W Oct-13</td>
<td>Workshop: Project development</td>
<td>Product Planning Worksheet (component of project draft)</td>
</tr>
<tr>
<td>15</td>
<td>9</td>
<td>M Oct-18</td>
<td>Guest presentation: Ryan Winston (OSU, FABE &amp; CEGE)</td>
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</tbody>
</table>
| 16    | 9    | W Oct-20   | 1) Progress reports  
2) Workshop: Project development                                             |                                                |
| 17    | 10   | M Oct-25   | Presentations: data collected and plan for analysis                         |                                                |
| 18    | 10   | W Oct-27   | 1) Progress reports  
2) Workshop: Project development                                             |                                                |
| 19    | 11   | M Nov-1    | Workshop: Project development                                               |                                                |
| 20    | 11   | W Nov-3    | 1) Progress reports  
2) Workshop: Project development                                             |                                                |
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<tbody>
<tr>
<td>21</td>
<td>12</td>
<td>M Nov-8</td>
<td>Project presentations: first draft of products and other materials</td>
<td>Project draft</td>
</tr>
<tr>
<td>22</td>
<td>12</td>
<td>W Nov-10</td>
<td>Workshop: Project development</td>
<td></td>
</tr>
</tbody>
</table>
| 23 | 13 | M Nov-15 | 1) Feedback on project draft  
2) Workshop: Project development |   |
| 24 | 13 | W Nov-17 | Workshop: Project development |   |
| 25 | 14 | M Nov-22 | Workshop: Project development |   |
| 14 | W Nov 24 | | No class – Thanksgiving break |   |
| 26 | 15 | M Nov-29 | Workshop: Project development |   |
|    | T Nov-30 | | Mock public meeting 8am-10am |   |
| 27 | 15 | W Dec-1 | Workshop: Project development |   |
| 28 | 16 | M Dec-6 | Project presentations: final draft | Final group and individual reports |
|    | T Dec-7 | | Environmental Professionals Network breakfast program presentations |   |
| 29 | 16 | W Dec-8 | Career models for collaborative environmental problem solving | Peer assessments |