



2021

## Environmental Decision-Making

Ezra Markowitz

University of Massachusetts Amherst, [emarkowitz@eco.umass.edu](mailto:emarkowitz@eco.umass.edu)

Follow this and additional works at: [https://scholarworks.umass.edu/sustainableumass\\_educationresources](https://scholarworks.umass.edu/sustainableumass_educationresources)



Part of the [Psychology Commons](#), and the [Sustainability Commons](#)



This work is licensed under a [Creative Commons Attribution 4.0 License](#).

---

Markowitz, Ezra, "Environmental Decision-Making" (2021). *Sustainability Education Resources*. 43.  
Retrieved from [https://scholarworks.umass.edu/sustainableumass\\_educationresources/43](https://scholarworks.umass.edu/sustainableumass_educationresources/43)

This Article is brought to you for free and open access by the Sustainable UMass at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Sustainability Education Resources by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).

## Environmental Decision-Making

NRC 494 EI Spring 2021

**Instructor:** Ezra Markowitz  
**Email:** [emarkowitz@eco.umass.edu](mailto:emarkowitz@eco.umass.edu)  
**Synchronous Meetings:** M/W 10:30am-12:00pm; Zoom [link](#); Password: 494EI2021;  
Call-in: +16468769923,,95052635815#  
**One-on-one office hours:** Th 10:00-11:00am & by appointment; Zoom [link](#) or call-in:  
+13017158592,,93732052914#  
**Public office hours:** M/W 10:15-10:30am (use class Zoom link below)

---

Over the past 30 years, there has been a growing recognition amongst environmental advocates, resource managers, policymakers and researchers that the underlying cause of most environmental, conservation and sustainability issues is **human behavior**. As NRC and ENVIRSCI majors, you have received extensive technical training in how natural systems operate yet relatively little training when it comes to influencing or understanding how people make environmental decisions that affect those natural systems. Recognizing the fundamental role that human decision-making plays in shaping the environment reveals a new set of tools and approaches for both understanding the challenges we face *and* confronting those challenges effectively. We will spend the semester exploring the **underlying factors** that drive environmental decisions, the **key challenges** that environmental issues pose for decision makers, and **insights from the behavioral, social and communications sciences** into designing effective environmental behavior change campaigns and strategies. In doing so, we will gain a greater appreciation for the importance of focusing on *people* when our aim, ultimately, is to protect the natural world.

### Course goals and learning objectives

---

After taking this course, students will be able to do the following:

- 1) Understand and appreciate the importance of looking at environmental conservation and sustainability through the lens of behavioral and social science;
- 2) Recognize the behavioral underpinnings of the conservation challenges we face;
- 3) Uncover the core drivers of individual and collective environmental decision-making, including psychological, social, political, cultural and contextual/structural factors;
- 4) Identify and weigh the competing interests and motives of diverse stakeholders, including financial, familial, attitudinal and other factors;
- 5) Detect key barriers to and facilitators of positive conservation behavior;
- 6) Implement evidence-informed tools and approaches to change their own and others' environmental behaviors;
- 7) Develop their own, evidence-based environmental behavior change campaigns.

## Environmental Decision-Making

NRC 494 EI Spring 2021

### Assignments & Grading

---

<b>Synchronous attendance &amp; participation</b>	<b>10%</b>
<b>Asynchronous participation</b>	<b>10%</b>
<b>Conceptual assessments (x4)</b>	<b>35%</b>
<b>Personal change assignment</b>	<b>10%</b>
<b>Scales of change assignment</b>	<b>10%</b>
<b>Campaign project</b>	<b>25%</b>

### Assignment details

---

***Synchronous attendance & participation (10%):*** Attendance for and active participation during the biweekly synchronous meetings (10:30a-12:00p Mondays and Wednesdays) is **required** for this course. All students are permitted two unexcused absences without any negative consequences for your attendance grade. If you are unable to attend due to any reason, please email me as soon as you know that you will be out of class (as I will need that information for use in setting up our remote classroom before each meeting).

Absences due to documented illness or other reasonable excuse will not be penalized.

Students who are having any trouble attending the synchronous sessions due to technological or other pandemic-induced barriers must email me and set up a time to discuss alternative options as soon as possible. All sessions will be recorded and posted to Moodle within 48 hours of the live meeting.

***Asynchronous participation (10%):*** Prior to the start of each synchronous meeting, students will be asked to **respond to a brief question** via Forums posted on Moodle. To receive credit, your response must be submitted by 8:00am on the day of class. Responses need not be long (1-2 short paragraphs). You must also respond to at least one other student's Forum post for that day in order to receive full credit (so, 2 posts per class day; 4 per week). Again, your responses do not need to be long, only thoughtful (and respectfully stated).

***Conceptual assessments (35%):*** Students will submit short conceptual assessments after each of the core units of the semester (of which there are four). The first assessment, due **2/12**, is worth 5% of your course grade; all subsequent assessments (due **2/26**, **4/2**, and **4/30** respectively) are worth 10%. All assessments should be uploaded to Moodle directly via the appropriate link under the Assignments section by 8am on their due date.

Assessments can be completed in one of two forms. The **preferred format** is a 4-5 minute Powerpoint (or similar) presentation with a recorded voice-over/narration. The easiest way to make your recording will be to start and record a Zoom session in which you simply share the slidedeck (your video can be on or off, whichever you prefer). An

## Environmental Decision-Making

NRC 494 EI Spring 2021

alternative option is to submit a 400-500 word (250 for the first unit assessment) written assessment that responds to the prompt I'll provide. Please note: if you choose the written version, you will be graded in part on the quality and clarity of your writing; as juniors and seniors, I expect your writing to be clear, concise and totally free of all typos and grammatical errors. Poor writing will significantly, negatively affect your grade on this and all other written assignments. I will provide more information regarding the assessments during the first week of the course.

***Personal change project (10%):*** This should be a fun, enlightening opportunity to try changing your (environmentally-relevant) behavior using evidence-based techniques. More details will be provided during the semester. In addition to the actual efforts involved in tracking and trying to change your behavior, this assignment consists of three short written components that must be turned in on the due dates listed on Moodle: goal setting (completed in-class); strategy selection (100-200 words); and post-change reflection (200-words).

***Scales of change (10%):*** In this short persuasive essay (500 words max, check your word count before submitting!), I want you to “pick a side” in the larger debate about which scale of behavioral intervention you think environmental and resource management advocates should be most focused on. Your answer should be informed in part by the specific environmental issue or behavior you are interested in (e.g., waste, energy, consumer habits, etc.).

***Campaign development project (25%):*** Working individually or in small groups (up to 4 people), you will design an evidence-informed behavioral intervention campaign aimed at improving a conservation or sustainability outcome of your choosing. There are four (4) core components to the research process involved in successfully completing this project (these are different from the actual assignments you will complete or hand in). These are:

- 1. Choose a target behavior(s) and audience to focus on.*
- 2. Conduct a search for background information and collect data on possible barriers and motivators for the target behavior in your target audience.*
- 3. Design your intervention (including: choose an approach; identify techniques you plan to use; create any visual or other materials, e.g., posters, videos)*
- 4. Create an implementation plan and estimate the impacts and feasibility of your proposed campaign or intervention (i.e., how would you actually put your plan into action? What are the benefits that can reasonably be expected?)*

Details regarding specific assignments involved in the term project (and due dates) will be provided early in the semester to help you in planning for a successful effort.

## Environmental Decision-Making

NRC 494 EI Spring 2021

### Asynchronous course materials

---

There is no core text for this class and no book to purchase. Instead, I will post readings, short videos, documentaries and podcasts on the course website on Moodle.

### What does Integrative Experience mean?

---

This course satisfies the Integrative Experience General Education requirement (IE) for students in the Natural Resources Conservation (NRC) and Environmental Science (ENVIRSCI) majors. The upper-division integrative experience (IE) provides a structured context for students to reflect on their own learning and explore the connections between the broad exposure provided by General Education and the more focused exposure of their major.

Integrative learning comes in many varieties: connecting skills and knowledge from multiple sources and experiences; applying theory to practice in various settings; utilizing diverse and even contradictory points of view; and, understanding issues and positions contextually.

The course addresses the goals of IE by fulfilling each of the following three criteria:

1. Providing a structured, credited context for students to reflect on and to integrate their learning and experience from the broad exposure in their General Education courses and the focus in their major.
2. Providing students with the opportunity to practice General Education learning objectives such as oral communication, collaboration, critical thinking and interdisciplinary perspective-taking, at a more advanced level.
3. Offering students a shared learning experience for applying their prior learning to new situations, challenging questions, and real-world problems.

The activities and assignments you'll complete in this course have been designed to achieve each of these goals while building your knowledge of the core course topic, decision-making for conservation. That is, the Integrative Experience-aspect of this course has been fully integrated into the class; it is not an extra "add-on."

### Class norms, conduct and policies

---

**Assignments:** Unless you have made arrangements with me prior to the deadline, late work will be penalized by 5% for every day the assignment is late.

**Communication:** During class and office hours are the best times to ask questions (feel free to use the chat box on Zoom, especially for questions that pop up but aren't

## Environmental Decision-Making

NRC 494 EI Spring 2021

pressing), but I will do my best to respond to emails within 48 hours, if not sooner. **Please include NRC 494** in the subject line of emails.

**Remote classroom etiquette:** This course is driven by active participation and dialogue; there will be minimal lecturing during our synchronous meetings, so your active engagement is critical. I ask that we maintain a high level of respect in our virtual classroom.

**Accommodations:** The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services, Learning Disabilities Support Services or Psychological Disabilities Services, you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me **within the first two weeks of the semester** so that we may make appropriate arrangements.

Everyone has the right to be addressed by the name and pronouns that they use for themselves. Students can indicate their preferred/chosen first name and pronouns on SPIRE, which appear on class rosters. Please let me know what name and pronouns I should use for you if they are not on the roster. A student's chosen name and pronouns are to be respected at all times. Also, please make sure that your name in Zoom is correct.

### Grades

---

I use a simple summative approach, with the assignments adding up to 100 points. Letter grades are assigned as follows: **A** (94-100), **A-** (90-93), **B+** (87-89), **B** (84-86), **B-** (80-83), **C+** (77-79), **C** (74-76), **C-** (70-73), **D+** (67-69), **D** (64-66), **F** (below 64).

### Academic honesty policy statement

---

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. The procedures outlined below are intended to provide an efficient and orderly process by which action may be taken if it appears that academic dishonesty has occurred and by which students may appeal such

## Environmental Decision-Making

NRC 494 EI Spring 2021

actions. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent. The University requires honesty of all its members in their academic work. Honesty is necessary to the learning process, and is integral to the atmosphere of genuine inquiry and intellectual curiosity that the University seeks to foster. Academic dishonesty not only contradicts the expectations of a community whose central purpose is the pursuit of intellectual endeavor, it violates University rules and regulations, a fact of which all students must be aware. For more information about what constitutes academic dishonesty, please see the Dean of Students' website:

[http://www.umass.edu/dean\\_students/codeofconduct/acadhonesty/](http://www.umass.edu/dean_students/codeofconduct/acadhonesty/)

**Class meetings and key due dates for course assignments (all asynchronous materials will be posted on Moodle, clearly marked by day); SM = synchronous meeting**

---

### **2-1 SM What is environmental decision-making?**

Due before class: Forum post; complete pre-term survey & assessment

### **2-3 SM Why do we care about environmental decision-making?**

Due before class: Forum post

### **2-8 SM What drives behavior? Framework and key insights**

Due before class: Forum post

### **2-10 NO CLASS**

Due 2-12: Conceptual Assessment #1

### **2-15 SM What drives behavior? Ideal notions versus reality**

Due before class: Forum post

### **2-17 SM What drives behavior? Individual differences**

Due before class: Forum post

### **2-22 SM What drives behavior? Systems & context**

Due before class: Forum post

### **2-24 NO CLASS**

Due 2-26: Conceptual Assessment #2

### **3-1 SM Organizational decision-making (Guest: Elise Amel)**

Due before class: Forum post

### **3-3 SM Setting SMART goals**

Due before class: Forum post

Due 3-5: Personal Change #1 (completed mostly in class on 3-3)

### **3-8 SM Consumerism (Guest: Tim Kasser)**

Due before class: Forum post

### **3-10 SM Barriers to change**

Due before class: Forum post

### **3-15 SM Scales of change**

Due before class: Scales of change writing assignment

## **Environmental Decision-Making**

NRC 494 EI Spring 2021

### **3-17 SM Collective decision-making**

Due before class: Forum post

### **3-22 SM Changing behavior I: Key tools & approaches**

Due before class: Forum post

### **3-24 SM Changing behavior II: Sustainable behavior change (Guest: Kevin Green)**

Due before class: Forum post

Due 3-26: Personal Change #2

### **3-29 SM Changing behavior III: Where interventions go wrong**

Due before class: Forum post

### **3-31 SM Changing behavior IV: Scaling up change (Guest: Jennifer Tabanico)**

Due before class: Forum post

Due 4-2: Conceptual Assessment #3

### **4-5 SM Changing behavior V: Ethics of changing others' behavior (Class Debate)**

Due before class: Forum post

### **4-7 SM Environmental communication I: Framing (Guest: Nat Kendall-Taylor)**

Due before class: Forum post

Due 4-9: Campaign Development Project #1

### **4-12 SM Environmental Communication II: Misinformation & disinformation**

Due before class: Forum post

Due 4-16: Personal Change #3

### **4-19 SM Environmental Communication III: Storytelling (Guest: Bath Karlin)**

Due before class: Forum post

### **4-20 NO CLASS**

### **4-21 SM Environmental Communication IV: Difficult topics**

Due before class: Forum post

Due 4-23: Campaign Development Project #2

### **4-26 SM Environmental Communication V: Looking ahead (Guest: Jill Kubit)**

Due before class: Forum post

### **4-28 SM Navigating the apocalypse**

Due before class: Forum post

Due 4-30: Conceptual Assessment #4

### **5-3 SM Wrap-up & visioning for the future**

Due before class: Forum post

### **5-10 NO CLASS (FINALS WEEK)**

Due 5-10: Campaign Development Project #3