

**NRC 597-ED**  
**Environmental Decision-Making (and Communication)**  
**Fall 2014**

Professor: Ezra Markowitz  
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**Course Info**

Class meetings: Mondays and Wednesdays, 4:15-5:45pm  
Room: 308 Holdsworth  
Course website: Moodle (some readings available on e-reserves)

**Course Description and Justification**

Over the past 20-30 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**. From large-scale, global problems like climate change to localized pollution and resource conservation issues, the environmental challenges we face are the result (or byproduct) of decisions we make as individuals, communities, organizations, businesses and societies. Recognizing the fundamental role that people play 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 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 improve the environment.

**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 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, cultural and contextual factors;
- 4) Identify the key barriers to positive environmental behavior, particularly at the individual and household levels.

Students will also develop the necessary knowledge base, tools and skills to:

- 5) Critically analyze existing and new environmental change campaigns, particularly those that involve a strong messaging and/or behavior change component;
- 6) Develop their own, evidence-based environmental behavior change campaigns.

**Assignments to be completed by all students (50% of total grade)**

*Participation (20%):* I expect everyone to attend and be active in all class sessions and activities; attendance is mandatory. I've worked very hard to limit the amount of reading required, so being present and active when we meet is critical. In addition to participating in class, there are a number of small tasks that I'll ask you to complete throughout the term; these will involve minimal time requirements but will add significantly to your overall course experience. One of these tasks involves posting questions, ideas and comments to the course Moodle discussion forums at least five (5) times during the course of the semester. There will be a forum available for every scheduled class period (except for 10/15, 12/1 and 12/3). Use these forums as a place to pose questions based on the readings or previous days' discussions in class as well as to highlight particular issues or concepts you find challenging, interesting or want to discuss in more depth in-class. There are a couple of days when I will want everyone to post something; I'll let you know when these are in advance. Students who don't speak up in class can (and should) still be active participants by posting more frequently to the course Moodle discussion forums. Unless otherwise noted, all Moodle posts should be made by 12:00pm (noon) the day of class. NOTE: your participation grade for the course will be split into two equal parts, one for the first half of the semester and the other for the second half; this allows me to give you some feedback halfway through the semester, giving you an opportunity to make adjustments if needed.

*Behavioral case study (10%):* In Week 5 of the semester (9/29 and 10/1), students will work in small groups to analyze an issue or environmental behavior (e.g., household energy use, transportation mode choice, fracking, family forest management), using what we will have learned in the first part of the course ("Environmental decision-making boot camp"). The aim will be to "diagnose" the core behavioral aspects of the issue as well as the key challenges involved. For class on Monday, 9/29, all students will need to write a half-page (very short!) "initial diagnosis" of their behavior or issue (this will be turned in to me). You will then work with your group members *in class* to develop short presentations that will be made to the rest of the class on 10/1 (5-7 minutes, plus time for questions). Groups have the option of presenting "live" or else pre-recording their presentations and showing the videos in class on 10/1 (I'll explain this in advance and point you towards digital media resources on campus).

*Midterm exam, in-class (20%):* Self-explanatory, the exam will cover all material from the first six (6) weeks of the course, including your classmates' behavioral case study presentations.

**Assignments for undergraduate & post-bac students only (50% of total grade)**

*Behavior change campaign project (30%):* Working in the same groups as you did for the behavioral case study, students will research, design and propose (as a concept plan presented to the rest of the class) an intervention or campaign that will address an environmental issue or

problematic environmental decision of your choosing (either the same issue your group presented for the behavioral case study or a different one, up to you). The format of the proposal is flexible; the key is to develop a proposal that a) identifies an environmental issue or problem that is driven by human behavior and b) proposes an evidence-based strategy to shift behavior (of individuals, organizations, communities, etc.) in a positive, productive direction. I'll provide more information and details about the group project later in the semester, including a grading rubric. The assignment consists of three components:

1. A one-page written overview of your proposed topic and direction (due 10/22);
2. A group presentation, which can be "live" or pre-recorded (due 12/1 or 12/3);
3. A 4-6 page "strategy memo" that explains your group's proposed campaign or intervention, identifies specific behavioral science principles that it incorporates and/or addresses, and presents a brief analysis (no more than 1 page) of the potential benefits and feasibility of the proposed intervention or campaign (due 12/3).

*Take-home final assignment (20%):* Working on your own (but with full access to any course materials or other information you can find), students will complete a take-home final assignment. The assignment will require you to pull from all of the various topics and issues we cover in the course to analyze an environmental behavior change issue and campaign that I will provide. The assignment will be handed out in the last week of the course and will be due during finals week (specific date TBD).

### **Assignments for graduate students only (50% of total grade)**

*Project or grant proposal (40%):* 10 pages max (single-spaced), can include separate budget proposal if desired. The aim is to identify a potential project or component of a project that would fit with your current dissertation, thesis or capstone project plans. I will work with each of you individually to identify a project that makes sense given your interests, current projects, research and career aims, etc.

*Project presentation (10%):* Graduate students will make 6-8 minute presentations (individually) to the class on 11/24, describing the project or grant you are proposing. By 11/19, each graduate student will need to write a "one-pager" about the project (500 words or less), which will be shared with everyone in the class. Undergraduate students will come prepared with questions based on the one-pagers.

### **Reading**

There is no core text for this class. Instead I will post journal articles and chapters on the course website. In addition, "reading" for a number of class periods will actually consist of watching YouTube and TED videos, episodes of *Years of Living Dangerously* (or other related shows) and other web-based environmental change campaign materials. Links to all videos will be available online via the course Moodle page.

Most course readings are posted on the Moodle site. However, a few are on the course e-reserves website, maintained by the UMass library. To access those resources, you will need to go to <http://ereserves.library.umass.edu> and sign on (if you have never used e-reserves, you'll need to

set up an account before you can access the course). Once logged on, search for the course. You'll need to enter the following password to access the course (you only need to enter the password once): environment14

If you have any problems accessing the course, please email [ereserves@library.umass.edu](mailto:ereserves@library.umass.edu) to ask for help.

### **Course Norms and Conduct**

Cell phone use is not allowed during class; this includes times when we are working in small groups. Laptops are fine for taking notes, but please respect your classmates and instructor by limiting yourself to class-related activities. Though you may have a preternatural ability to multi-task, using a laptop for purposes other than taking notes is distracting to those around you. If you'd like some "cold hard facts" regarding the negative effects of multitasking on learning in the classroom, see this article (<http://slate.me/1m4ydJn>).

If you must miss class, let me know as far in advance as possible (exceptions made for documented illness and family emergencies). Letting me know in advance is especially important if you think you may miss any of the in-class presentation/group activity days or the midterm exam (currently these are scheduled for 9/29, 10/1, 10/15 [midterm], 11/3, 11/10, 11/24, 12/1, and 12/3). Don't worry, you personally won't necessarily be presenting to the class on all of these days, but it may cause issues for your group members if you miss them.

### **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 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/)

## **Disability Statement**

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.

## **Schedule (subject to change)**

Readings: L = link on Moodle; P = PDF on Moodle; E = ereserves

9/3 (W) What is Environmental Decision-Making (EDM)?

9/8 (M) EDM Boot Camp I: Why do we care about environmental behavior?

Reading: Dietz et al. (2009)<sup>L</sup>

Assignment: Post to Moodle forum, 'Behavioral underpinning of conservation'

Assignment: Complete Footprint online prior to class (<http://bit.ly/18CYKYJ>)

9/10 (W) EDM Boot Camp II: Behavioral challenges and barriers to conservation

Reading: Gifford (2011)<sup>P</sup>

Reading: Larrick & Soll (2008)<sup>P</sup>

9/15 (M) EDM Boot Camp III: Drivers of behavior part 1

Reading: Newell et al. (2014)<sup>P</sup>

Optional reading: Gifford (2014)<sup>P</sup>, p. 541-553

Assignment: Read instructions for in-class activity before class

9/17 (W) EDM Boot Camp IV: Drivers of behavior part 2

Reading: Newell et al. (2014)<sup>P</sup>

Optional reading: Gifford (2014)<sup>P</sup>, p. 541-553

9/22 (M) NO CLASS

9/24 (W) EDM Boot Camp V: Final considerations

Reading: Weber (2014)<sup>E</sup>

9/29 (M) Behavioral Case Studies I: Intro and prep

Reading: Datta & Mullainathan (2012)<sup>P</sup>

Assignment: ½ page behavioral analysis due

- 10/1 (W) Behavioral Case Studies II: Group presentations  
Reading: NONE  
Assignment: In-class presentations due
- 10/6 (M) Changing Behavior I: Laying the groundwork  
Reading: Schultz (2014)<sup>L</sup>  
Reading: Ly et al. (2013)<sup>P</sup>
- 10/8 (W) Changing Behavior II: Further techniques, case studies  
Reading: Explore CBSM website, read 2-3 case studies  
Reading: Kaufman (2010)<sup>L</sup>  
Assignment: Be prepared to discuss case study
- 10/14 (T\*) Changing Behavior III & Test Prep  
Reading: NONE  
Watch: TED Talk<sup>L</sup>  
Assignment: Bring questions for midterm prep session  
Assignment: Report back on behavior change attempt
- 10/15 (W) MIDTERM  
Reading: NONE
- 10/20 (M) Environmental Communication I  
Reading: Nisbet (2009)<sup>P</sup>  
Optional reading: Nisbet, Markowitz & Kotcher (2013)<sup>P</sup>
- 10/22 (W) Environmental Communication II  
Reading: Arvizu (2012)<sup>L</sup>  
Watch: Randy Olson TED Talk<sup>L</sup>  
Assignment: Find statistics about environmental issue of interest, post to Moodle
- 10/27 (M) Environmental Communication III  
Reading: Boykoff & Yulsman (2013)  
Assignment: Group project proposal (1-pager)
- 10/29 (W) Campaign Analysis I  
Reading: NONE  
Assignment: Find environmental campaign, post to Moodle
- 11/3 (M) Campaign Analysis II  
Watch: Years of Living Dangerously (episode 1, *optional* episode 9)
- 11/5 (W) Ethics of Behavior Change  
Reading: Thaler & Sunstein (2003)<sup>P</sup>  
Assignment: Prepare for in-class debate (including find relevant article)

11/10 (M) Workshop final projects

Reading: NONE

Assignment: Prep initial materials, project outline and strategy plan

11/12 (W) NO CLASS

11/17 (M) Class picks topic

Reading: TBD

11/19 (W) Class picks topic

Reading: TBD

Assignment: Graduate students prepare 1 pager on final project

11/24 (M) Graduate Student Final Presentations

Reading: NONE

Assignment: Undergraduates prepare two (2) questions for grad student presentations

11/26 (W) Thanksgiving, NO CLASS

12/1 (M) Campaign Presentations

Reading: NONE

Assignment: Groups 1, 2 and 3 final presentations

12/3 (W) Campaign Presentations & Course Wrap-Up

Reading: NONE

Assignment: Groups 4 and 5 final presentations

Assignment: All Groups, strategy memo