HUMAN DIMENSIONS OF ECOSYSTEM MANAGEMENT

ENR 8400, Fall Semester 2016

Credits: 2 hours

Meeting times: Monday: 12:10 – 2:00PM, Kottman Hall, Rm. 245

Instructor: Eric Toman, PhD
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Columbus, OH 43210

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Office Hours: Week days, by appointment

Course Description
This course provides an overview of interdisciplinary theories and frameworks for studying how human societies affect, and are affected by, ecosystem processes and environmental conditions from local to international scales. The primary goals of this course are to develop understanding of (1) foundations of human impacts on the environment and legacies in environment and natural resource management, (2) theoretical perspectives that explain human interactions with environment, and (3) how to integrate social science approaches within interdisciplinary frameworks to understand and address environmental problems. We will discuss interactions between science, policy, and management, the philosophical foundations of sustainability and ecosystem management, and existing and emerging frameworks that seek to integrate human and biophysical components of ecosystems. The course will be organized in three parts.

Part I. On the Origins of our Ecological Dilemmas
In the first part of the course, we will review early narratives, theories and debates concerning how humans impact their environment and divergent beliefs about appropriate uses of natural resources. We will discuss emerging philosophies of environment and natural resource management and several conflicts that result divergent perspectives. Several of these emerging conflicts illustrate there are no objectively “right” answers for many of the most contentious issues and raise several of the factors embedded in many environmental challenges facing society today.

Part II. Emerging Frameworks to Understand and Manage Human – Environment Interactions
In the second part of the course, we will consider the philosophical and scientific foundations for emerging efforts to explain human interactions with the environment. We will also consider the foundations upon which ecosystem management and alternative approaches are developed to navigate social and environmental conflicts in natural resource and environmental management.

Part III. Disciplinary Perspectives on Environmental Problems
In the final part of the course, we will consider integration both within the social sciences and between social and biophysical sciences to address environmental challenges. Some class sessions will include guest lecturers who will share their expertise and experiences. In these discussions, students will be asked to integrate key concepts and ideas discussed in the beginning of the course with knowledge gained from
other social and biophysical sciences toward the ultimate goal of better understanding how to sustainably manage our environment and natural resources. Our final discussions will explore conceptual frameworks that integrate knowledge across disciplines to understand and contribute to sustainable resource management.

**Course Goals**

At the conclusion of this course, students will be able to…

1. Describe how theories and methods employed by social scientists can be used to improve understanding of the causes and consequences of environmental challenges.
2. Critically consider the role of humankind in contributing to and addressing environmental challenges.
3. Apply critical thinking skills to consider the coupled nature of current environmental challenges.
4. Describe similarities, differences, and potential contributions from a range of social science approaches to better understand environmental challenges.
5. Consider existing frameworks and potential approaches to integrate ways of knowing across disciplines.

**Course Format & Grading**

**Format:**

Classes will include a variety of instructional strategies including participatory lectures, guest speakers, discussion, and small group activities. Because of the interactive nature of this course, students are expected to attend class sessions prepared (defined as having read and reflected upon readings and course content) and actively participate in class discussions. Participation will be observed throughout the term and counted towards the course grade (see below). Some classes will include participation from guest speakers, it is particularly important that you come to class prepared to actively engage in class discussion during these sessions.

While class sessions will involve an active and vigorous exchange of ideas, participants are expected to demonstrate respect for one another at all times. Disrespectful comments or interactions will not be tolerated.

**Readings:**

There is no required textbook for this course. All readings will be made available online through CARMEN. The daily readings are a critical part of this course. Students are expected to come to class prepared to discuss the week’s readings. An initial schedule of readings is provided below; additional readings will be added throughout the semester based on class interest. All readings will be available on Carmen at least one week prior to the class session where they will be discussed.

**Grading:**

A total of 100 points are possible for this course. The table below demonstrates the minimum percentages required for each grade level.

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Assessment tasks:
Grades will be based on performance on the following activities. Late assignments will be docked one letter grade for each day past due.

Participation (20 points): Participation scores will be based on each student’s participation in classroom discussions. Regular attendance is a necessary, but insufficient, condition for a passing grade in participation. Students will have opportunities to add to class discussions throughout the quarter; these opportunities include: answering questions, responding to other students’ ideas, asking questions, as well as in-class group work. Note: Reading and thinking about the assigned reading before class are critical for classroom participation.

Absences: All absences must be approved in advance by contacting the instructor prior to the date you plan to miss. Unexcused absences (UAs) will result in the following deductions to participation scores: -5 points for the first UA, and -10 points for each additional UA.

Reflections on readings/course concepts (10 x 2 points): On designated weeks (noted on course schedule) you will develop a brief (300 words or less) critique, analysis, or reflection on course material. Reflections are due, in hard copy, at the beginning of class on the assigned day (late submissions will be docked one letter grade) and should further explore concepts raised in class readings and discussions, integrate concepts across readings and class sessions, and demonstrate application of course concepts. Some of these will have assigned topics while others will be “open” for you to select the topic of your choice. In each case, I will expect your reflection to present your original, critical analysis, and not merely describe a point of view - yours or someone else's. I expect your writing to be clear, succinct, logically organized, and free of grammatical or spelling errors. We will discuss reflections at the beginning of class (this will often involve sharing your reflection with another student for feedback and discussion).

Discussion Leader (20 points): During specified weeks, students will work in teams to lead the discussion of selected readings. Students will select the week they choose to serve as a Discussion Leader. Working together, students will be responsible to facilitate class instruction regarding the material presented in the paper. Everyone is expected to contribute equally and students will assess the contributions of teammates. Students should plan on develop enough material for approximately 60 minutes and include a lecture and interactive component. Dr. Toman will provide additional information about content and suggested activities. Students should sign up to lead the discussion for one of the selected days prior to the second class session through the appropriate “Discussion” on Carmen.

Issue Analysis Paper (Draft 1: 10 points, Due: 10/24; Final paper: 20 points, Due: 12/9 by noon): The purpose of the issue analysis paper will be to analyze the human/social dimensions of a specific natural resource management or environmental issue that was not discussed in class. The issue analysis paper provides students with an opportunity to apply concepts learned in class to an issue of their choice. The format for this paper is somewhat flexible, but generally the paper should contain the following components:

1. **Introduction.** A brief introduction that explains the issue (i.e., what is the problem), and why the issue is of importance to society. Note: The introduction is where biophysical research is most relevant.

2. **Analysis (Body).** The purpose of the paper is to help students understand the root cause(s) of pressing environmental problems and apply theory and concepts introduced in the course to
understanding these problems. In the body of the paper, students will describe the social and political conditions that have given rise to the issue and/or prevent its meaningful resolution. In this section it is important to cite relevant research from the course and describe the theoretical “lens” (or lenses) through which the issue is being viewed (e.g., the issue is a ‘common pool resource’ problem).

3. **Solutions.** In the final section of the paper, students should offer ideas for how the problem/issue they have chosen might be solved, mitigated, or otherwise managed. Your ‘solutions’ section should be linked to your analysis of the problem. So, for example, if you’ve identified that the issue you’ve identified constitutes a social conflict over how resources should be managed, you might then point to literature on conflict management or alternative dispute resolution as a means for addressing the conflict. If the problem is irreconcilable given prevailing social conditions, then you need to describe why this is the case (i.e., what barriers prevent or hamper resolution?).

A minimum of **8 outside sources** (sources from outside of class content) are required for this paper; in addition, students must cite relevant course readings where appropriate (note: Wikipedia is not an acceptable source). Initial draft papers should be around 2,000-2,500 words (not including title and citations) and formatted to use 1” margins and 12-point *Times New Roman* font. Information must be properly attributed and cited; presenting information from other sources without proper attribution is not acceptable and grounds for a failing grade on the assignment. You may use any standard citation style that uses a Name/Year (e.g. Smith & Smithers, 2000) format such as, APA or Chicago styles. Papers must be your original work.

**Peer Review (2 x 5 points; Due: 11/7):** Each student will be asked to review two of his/her peer’s papers, focusing on providing feedback regarding the clarity of writing, logic, and interpretation of content. Students will then revise papers based on this input and additional input from the instructor, and submit a final paper by the end of the quarter. Students will be given 500 words (for a total of 3,000) to deal with the changes suggested by reviewers.

**Academic Misconduct:**
Faculty Rule 3335-31-02 defines academic misconduct as any activity that tends to compromise the academic integrity of the institution or subvert the educational process. Academic misconduct (e.g. plagiarism, cheating, and other forms of misconduct) will not be tolerated in this course. Please see the Student Resource Guide or the instructor if you have questions about this policy.

**Accommodations for Disabilities:**
Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor as soon as possible to discuss potential accommodations for their specific needs. You might also wish to contact the Office for Disability Services (614-292-3307, 098 Baker Hall, 113 W, 12th Ave.) who provide assistance coordinating reasonable accommodations for students with documented disabilities.
Course topics & schedule

**note that readings are subject to change, but that any changes will occur at least one week in advance**

Part I. On the Origins of our Ecological Dilemmas

29 Aug.  **Linking Environment & Society—Frameworks and Conceptual Approaches**


Assignments: None

5 Sept.  **Labor Day – No Class**

12 Sept.  **Societal Collapse, Human Populations, and some Inconvenient ‘Truths’**


Saxe, John Godfrey. *Blind Men and an Elephant.* (Poem)

Assignments: Written reflection; Discussion Leader Day 1

Part II. Emerging Frameworks to Understand and Manage Human – Environment Interactions

19 Sept.  **Debates over Conservation and Sustainability (Jeremy Bruskotter guest lecture)**

** Will likely include one or two additional readings


Assignments: Written reflection

26 Sept.  On the Tragedy of the Commons


Assignments: Written reflection; Discussion Leader Day 2

3 Oct.  Environmental Problems as Social Problems (or When there’s no Easy Fix)

Read one of these:


Read all of these:


Assignments: Written reflection; Discussion Leader Day 3

10 Oct.  “Fixing” Environmental Problems

Heberlein, T. A. 2012. Ch 1 in *Navigating environmental attitudes*. Oxford University Press. *(Discussion led by assigned Discussion Leaders)*


**Assignments:** Written reflection; Discussion Leader Day 4

**17 Oct. The Promise of Ecosystem Management**


**Assignments:** Written reflection, Discussion Leader Day 5

**24 Oct. Case Study – Malheur Wildlife Refuge Occupation**

Readings and media files will be available on Carmen. Activity to be discussed in class.

**Assignments:** First Draft of Issue Analysis Paper

**Part III. Disciplinary Perspectives on Environmental Problems**

31 Oct. Guest Speaker: Ramiro Berardo (Readings TBA)

**Assignments:** Written reflection

7 Nov. Guest Speaker: TBA

**Assignments:** Written reflection

14 Nov. Guest Speaker: TBA

**Assignments:** Peer Reviews

21 Nov. Guest Speaker: TBA

**Assignments:** Written reflection

**Part III B. SOME FINAL THOUGHTS**
28 Nov.  Perspectives on Science and Advocacy


Assignments: Written reflection, Discussion Leader Day 5

5 Dec.  Barriers to an Interdisciplinary Understanding of Socio-Ecological Systems / Wrap-up


9 Dec.  FINAL PAPER Due @12 Noon