

EES 489
Critical Issues In Environmental Policy
Fall 2014

Time: Tuesday/Thursday 8:00 – 9:15

Location: 157 Hitchner Hall

Instructor: Mark W. Anderson, Senior Instructor in Resource Economics and Policy

Office: 305 Winslow Hall

Phone: 581-3198

email: Mark Anderson on FirstClass

Office Hours: Wednesday 10:00 – 1:00 or by appointment.

You must be planning for graduation in December 2014 or May 2015 to be enrolled in this class this semester. If you are graduating after May 2015, you should complete this class in the fall of 2015.

Course Purpose and Learning Outcome Goals: This course serves as a capstone course for Ecology and Environmental Sciences majors. That is to say, this course allows you to demonstrate that you have mastered the skills identified as key learning outcomes for the EES program. You must earn a C or better in this class to meet the program's graduation requirements. Upon graduation, EES students should be able to:

1. Effectively apply basic principles of the natural and social sciences to current issues of natural resources and the environment;
2. Understand and appropriately use the vocabularies of the natural and social sciences relevant to issues of natural resources and the environment;
3. Write and speak clearly about technical issues related to their concentration of study in the EES program;
4. Work collaboratively with other professionals in the disciplines of the major to address significant policy issues in natural resources and the environment;
5. Choose and apply appropriate quantitative tools necessary to analyze significant issues related to their concentration of study in the EES program;
6. Evaluate sources of technical information for credibility and relevance for addressing significant issues related to their concentration of study in the EES program;
7. Identify significant ethical issues in natural resources and the environment and be able to address these issues in an informed and thoughtful manner.

The class is designed to allow you to demonstrate that you have acquired these skills and understandings.

Academic honesty: Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Grading: Letter grades (no +/- grades) will be assigned on roughly the following proportions:

-class participation (attendance is necessary, but not sufficient)	30%
-writing responses to journal articles	30%
-group project report and presentation – group grade	25%
-group project – peer assessment grade	15%
-final reflection paper is not graded but satisfactory completion is necessary for EES majors to receive a final grade in the class.	

Class Participation and Article Responses: Each Tuesday class session will include a class discussion of assigned journal articles assigned listed in the schedule below. You should come to class having carefully read the assigned reading so that you are able to discuss and apply the ideas and factual content of the text. Emphasis will be placed on relating these texts to materials from the EES curriculum and other courses you have taken. Attendance is necessary but not sufficient for participation. You are expected to actively contribute to the class discussion. Group work will take place on Thursdays in class.

During the semester we will read several “classic” articles relevant to your EES degree (see schedule below). For each of these articles you will write a 3-4 page response. In your response papers you should do two things. First, briefly identify the author’s fundamental thesis in the paper, but refrain from summarizing the whole paper. Second, make an argument about the paper in the context of your learning in the EES program and of the other articles we will read this semester. The papers are due at the start of the class period where the article is listed below and the article will also be the basis for class discussion that day. Please use APA citation format for in text citations and reference list. I strongly suggest that you have at your fingertips a style guide such as Dianna Hacker’s Rules for Writers.

EES Program Reflection Paper: The final reflection paper in this class is a five to ten page paper in which you discuss the EES curriculum that you are nearing completion of and its relation to your learning in your academic career. Issues you might discuss include (but do not treat this as an outline for your paper):

- How you have changed as a learner
- What you have learned about the relationship between humans and the natural world
- Subjects that now you wish you had studied and why
- How your studies have changed your outlook on the world
- What you think you might pursue as a career
- The most significant things you have learned and what makes them significant
- How well you think you met the program's learning outcomes goals for graduates listed above in the syllabus
- Other comments and reflections you have about yourself or the EES program

Team Project: Thursday's in class we will work on group projects that will continue throughout the semester.

Class Attendance Policy: You are expected to attend all class sessions and to be prepared to discuss the assigned readings for the day. I may assign readings for which you will be responsible in addition to those listed below.

Week of	Tuesday	Thursday
September 1-5	Course Organization – Team Formation Introduction to term project.	Discussion of group projects
September 8-12	Hardin, G. (1968). The Tragedy of the Commons. <i>Science</i> , 162, 1243-1248.	Project topics: <ul style="list-style-type: none"> • Related to EES • Maine based • Current Come prepared as a group with choice of project.
September 15-19	Krutilla, J.V. (1967). Conservation Reconsidered. <i>American Economic Review</i> , 57(4), 777-786	Human Subjects in research. Complete UMaine human subjects training before next Thursday. http://umaine.edu/research/research-compliance/institutional-review-board-for-the-protection-of-human-subjects-irb/required-training/
September 22-26	Arrow, K. et al. (1995). Economic Growth, Carrying Capacity, and the Environment. <i>Science</i> , 268, 520-521.	Project research” <ul style="list-style-type: none"> • Technical Literature Review • Expert interviews • Survey of campus community
September 29 – October 3	Vitousek, P. M., Ehrlich, P. R., Ehrlich, A. H., & Matson, P. A. (1986). Human appropriation of the products of photosynthesis. <i>BioScience</i> , 36(6), 368-373.	Expert Interviews should be scheduled by this point. Library resources. Introduction to internet survey tools.

October 6-10	Rittel, H.W.J. and Webber, M. (1973). Dilemmas in a General Theory of Planning. <i>Policy Sciences</i> , 4(2), 155-169. Response paper due.	Web based survey tools. Come to class prepared to discuss options.
October 13-17	Fall Break	No class, work on projects.
October 20-24	White, L. Jr. (1967). The Historical Roots of Our Ecological Crisis. <i>Science</i> , 155, 1203-1207.	Annotated Bibliography of technical literature review due. Interviews with experts should be complete. Summary report due.
October 27-31	Steffen, W., Crutzen, P.J., and McNeill, J.R. (2007). The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature? <i>Ambio</i> , 36(8), 614-621.	Draft survey instrument due. It may need to be submitted to IRB for approval before next class. Every item in the survey needs to have a purpose. Hypothesis testing and statistical tests.
November 3-7	Smil, V. (2002). Nitrogen and food production: proteins for human diets. <i>AMBIO: A Journal of the Human Environment</i> , 31(2), 126-131.	Post survey and begin collection of data from UMaine students.
November 10-14	Steneck, R. S., Vavrinec, J., & Leland, A. V. (2004). Accelerating trophic-level dysfunction in kelp forest ecosystems of the western North Atlantic. <i>Ecosystems</i> , 7(4), 323-332.	Project update.
November 17-21	Solow, R. M. (1991). Sustainability: an economist's perspective. I will provide the .pdf for this.	Draft of technical literature review due.

November 24-28	Martínez-Alier, J., Pascual, U., Vivien, F. D., & Zaccai, E. (2010). Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. <i>Ecological Economics</i> , 69(9), 1741-1747.	Thanksgiving Break Survey data collection complete.
December 1-5	Chakravarty, S. et al. (2009). Sharing global CO2 emission reductions among one billion high emitters. <i>PNAS</i> , 106, 11884-11888.	Draft summary of survey data due. What simple statistical tests need to be done?
December 8-12	Kates, R.W. and Parris, R.M. (2003). Long-term trends and a sustainability transition. <i>PNAS</i> , 100, 8062-8067.	Putting a final technical report and project poster together.
December 15-19	Final Exams Week -- Team project poster presentation and reports due during scheduled final exam period. Project peer review completed.	