

Environmental Science, Policy, and Problem Solving: ES 370, spring 2011

Course description

The goal of this course is to explore how policy is shaped by science and how the impact of science is affected by various stakeholders, including the media and the layperson. We will begin the semester by reading and discussing the fundamentals of environmental science and policy. After that, you will work in groups to dive into and analyze several pieces of legislation, both domestic and international.

Specific course objectives

1. Understand how environmental policy and legislation get created, *including the role of science* and the ways that different stakeholders engage in the policy-making process.
2. Understand some of the key environmental laws and policies and the role of science in the creation of those laws and policies.
3. Understand the barriers between the practice of environmental science and the formation of environmental policy, as well as strategies for breaking down these barriers.
4. Learn the skills required to research and analyze the science and policy of specific environmental problems, and assess solutions to those problems.

Instructor/class information

Instructor

M. Elsbeth (Misty) McPhee
mcpheem@uwosh.edu
424-0644

office hours:

Mon 9:00 – 10:00 am

Wed 12:40 – 2:00 pm

Thurs 11:00 am – 1:00 pm

If these don't work for you, I'm happy to set up an appointment at a more convenient time. My schedule is posted on D2L so you can see when I'm available.

office: 313 Swart

Meeting times/locations:
Monday, Wednesday, Friday
11:30a – 12:30p
Clow 45

Required Texts & Materials

There are no required texts – all readings will be provided via D2L.
If you would rather own the book than read pdfs, we will read a fair amount of:

Ascher, W, T Steelman, and R Healy. Knowledge and Environmental Policy: Re-imagining the Boundaries of Science and Politics. Cambridge, MA: MIT Press, 2010.

Grading

Your grades will be based on: (for descriptions, see below)

1. Class participation	150
2. Exam	100
3. Legislative research	
reports (30 pts each)	90
presentations (30 pts each)	120
group work (25 pts each)	100
4. Final project	
paper	100
presentation	80
group work	30
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To figure your grade at any point throughout the term, add the total points earned and divide by the total points possible up to that point.

<u>% of total points</u>	<u>Grade</u>	<u>% of total points</u>	<u>Grade</u>
94-100	A	73-76	C
90-93	A-	70-72	C-
87-89	B+	67-69	D+
83-86	B	63-66	D
80-82	B-	60-62	D-
77-79	C+	≤ 59	F

Grade descriptions

1. Class participation

The first three weeks and several other days throughout the semester will be primarily discussion of assigned readings. A significant portion of your grade will be how well prepared and interactive you are in these discussions. Your participation grade will be based on your overall engagement in the class – obvious signs of engagement are questions and participation in discussion; other signs are coming to talk to me in office hours or before/after class; finally just general attitude and attendance in the classroom matters.

A = Always comes to class, participates often and meaningfully

A- = Always comes to class, participates a fair amount

B = Always comes to class, participates some

B- = Always comes to class, participates rarely

C = Always comes to class but never participates

F = Never comes to class

If you simply cannot make a class, please get in touch with me before the class meets. Your **active** participation is the key to your learning the material and to the success of the course—both for you as an individual and for the class as a whole.

2. Exam

At the end of the first three week section, there will be an exam on the readings and ideas discussed.

3. Legislative research

There will be four units of legislative research: two based on US legislation and two international. Each unit will consist of groups choosing one piece of legislation and spending up almost two weeks researching (1) the problem that led to the perceived need for legislative action, (2) the science that shaped the formation of policy, (3) the various stakeholders involved in the issue and how they impacted the current policy, and (4) how the media portrays the issue and how reflective that is of the issue's core.

At the end of the unit, you and your group will give a short presentation to the class summarizing your key findings. In addition, you will turn in an individual report and evaluation of group.

Reports: Between 4 and 6 pages *double-spaced*, your report will be written individually (not as a group) and should address the four facets listed above. Everyone will write a report for the first unit (US Legislation I) but you only have to write up two of the three remaining units. Which you write is your choice. A grading rubric for the report will be posted on D2L.

I do all my grading electronically. Therefore, all reports and your final paper must be

- double spaced
- in pdf format
- submitted through the D2L dropbox

The upside of electronic grading is that we don't use any paper. The downside is you get less feedback because it's harder to make comments, save, and then upload a document than to just jot thoughts on a piece of paper and hand it back. So – please let me know if you want more detailed feedback and I will give it.

Presentations: Each group will give a 10-minute presentation on your research. A grading rubric for the presentation will be posted on D2L.

Group evaluation: Scoring group projects can be difficult and students typically feel that it's unfair. Therefore, after you present, you will turn in a brief description of what you did (as an individual) to research the legislation and prepare for and give the presentation, and how your group worked together. One short paragraph is sufficient. You should then:

1. give **yourself** a grade out of a possible 25 points, and
2. give your **group** a grade out of 25.

These two numbers will not necessarily be identical, and as I already have some idea of how I will grade you, you should evaluate your efforts honestly.

You should assume the following standard:

A = 21.6 – 25

B = 20 – 21.5

C = 17.6 – 19

D = 15 – 17.5

F < 17.5

4. Final project

The final project will be very similar to the four legislative units – however, you will work in groups to solve a chosen problem. In other words, you will identify a problem of your choice and design the process necessary to solve the problem. For this, you will look at the available science and consider the stakeholders to create a piece of legislation that could effectively address the problem.

You will turn in a final paper that will be no more than 15 pages in length (see the formatting requirements listed under the Legislative research section). With your group, you will present your project to the class. This presentation, however, will be 15-20 minutes long. As with the units, you will evaluate you and your group.

Miscellaneous – but important – comments

1. Cell phone use will NOT be permitted in my classroom. If your cell phone goes off or you text during class, you will be asked to leave and I will automatically deduct 50 points from your overall grade.
2. Laptops: you are more than welcome to use laptops in class to take notes, but you are NOT to use them for any other purpose. If I see that you are using your laptop for anything other than note-taking, I will ask you to close your computer and automatically deduct 50 points from your overall grade.
3. I will NOT tolerate emails or assignments written in shorthand – if you send me anything in shorthand I will consider it unreadable and thus, won't read it. If it is a graded assignment, you will receive a 0 until you hand in a legitimate version (at which point penalties for handing in the work late will apply).
4. Exercises will be accepted late but points will be taken off (10% per day).
5. **EXAM.**
 - If you need to miss an exam due to a University-sponsored activity (e.g. athletics contest), you will know ahead of time and your coach will have provided you with a letter. Bring a copy of that letter to me ahead of time, to permit a make-up to be arranged.

- I will NOT reschedule the exam for reasons of holiday or end-of-term travel.
6. **STUDENTS WITH DISABILITIES ARE WELCOME IN THIS COURSE.** Please contact me in the first week of class so that we may arrange all possible accommodation ahead of time.
 7. **EMAIL COMMUNICATION and D2L** will be used frequently throughout the semester to communicate between Instructors and Students. Emails constitute legal, official University communication. Not checking your email is not an excuse for performance problems in the class. Contact Academic Computing or any Campus Computer Lab supervisor for assistance with email and D2L.
 8. **ACADEMIC HONESTY** policies are clearly defined at this University and all students are expected to abide by them. Penalties for violations are severe in this course. Cheating on an exam (including looking at someone else's paper) at a MINIMUM leads to zero on that exam, with no opportunity for a make-up or extra credit. A second offense is an F in the course and a report to Dean of Students.

Proposed lecture and assignment schedule

Date	Topic	Assignments due
<u>1. Introduction</u>		
Mon, 31 Jan	Introduction to US politics and science	
Wed, 2 Feb	Overview of issues	<p>Read: Talbot, LM. "Introduction: The quest for environmental sustainability." In Foundations of Environmental Sustainability, 3-24. New York: Oxford University Press, 2008.</p> <p>Read: Vitousek, PM., HA Mooney, J Lubchenco, and JM Melillo. "Human Domination of Earth's Ecosystems." Science 277, no. 5325 (July 25, 1997): 494-499.</p>
Fri, 4 Feb	Human behavior and the US environmental movement	Read: Ehrlich, PR. "Human Natures, Nature Conservation, and Environmental Ethics." BioScience 52, no. 1 (2002): pp 31-43. – <i>with correction</i>
Mon, 7 Feb Wed, 9 Feb	How is policy made?	<p>Read: Keller, AC. Science in Environmental Policy: The Politics of Objective Advice. Cambridge, MA: MIT Press, 2009: Chapter 2, pp 45-84.</p> <p>Read: Vaughn, Jacqueline. Environmental Politics: Domestic and Global Dimensions. Boston: Wadsworth Cengage Learning, 2011: Chapter 3, pp 60-99.</p>
Fri, 11 Feb	How is science generated?	Read: Ascher, W, T Steelman, and R Healy. Knowledge and Environmental Policy: Re-imagining the Boundaries of Science and Politics. Cambridge, MA: MIT Press, 2010: Chapter 2, pp 27-60.
Mon, 14 Feb	Risk and uncertainty in science and planning	Read: TBA
Wed, 16 Feb	How science is communicated	Read: Ascher, W, T Steelman, and R Healy. Knowledge and Environmental Policy: Re-imagining the Boundaries of Science and Politics. Cambridge, MA: MIT Press, 2010: Chapter 3, pp 61-98.
Fri, 18 Feb	The role of science in policy	<p>Read: Ascher, W, T Steelman, and R Healy. Knowledge and Environmental Policy: Re-imagining the Boundaries of Science and Politics. Cambridge, MA: MIT Press, 2010: Chapter 1, pp 1-25.</p> <p>Read: Keller, AC. Science in Environmental Policy: The Politics of Objective Advice. Cambridge, MA: MIT Press, 2009: Chapters 3 & 4, pp 85-168.</p>
Mon, 21 Feb		Exam
<u>2. US Legislation I</u>		
Wed, 23 Feb – Wed, 2 Mar	US Legislation	Read: TBA
Fri, 4 Mar		<p>Due: US Legislation report 1</p> <p>Due: Group presentations</p>

<u>3. US Legislation II</u>		
Mon, 7 Mar – Wed, 16 Mar	US Legislation II	Read: TBA
Fri, 18 Mar		Due: US Legislation report 2 Due: Group presentations
Mon, 21 Mar – Fri, 25 Mar	<i>NO CLASS - Spring Break</i>	
<u>4. International Legislation I: Climate Change</u>		
Mon, 28 Mar	International Legislation I	Read: TBA
Wed, 30 Mar and Fri, 1 Apr	<i>NO CLASS – work in groups</i>	
Mon, 4 Apr – Wed, 6 Apr	International Legislation I, cont.	
Fri, 8 Apr		Due: International Legislation report 1 Due: Group presentations
<u>5. International Legislation II</u>		
Mon, 11 Apr – Wed, 20 Apr	International Legislation II	Read: TBA
Fri, 22 Apr		Due: International Legislation report 2 Due: Group presentations
<u>6. Conclusion</u>		
Mon, 25 Apr – Fri, 29 Apr	Final legislation	Read: TBA
Mon, 2 May – Fri, 6 May	What does the future hold?	Read: TBA
Mon, 9 May – Fri, 13 May		Due: Final group presentations Due: Final paper