Policy, Science, and the Environment
ENVS 5000
University of Colorado
Fall Semester 2009

Roger A. Pielke, Jr.

Course Homepage:
http://sciencepolicy.colorado.edu/students/envs_5000

Lecture and discussion sections meet in the conference room at 1333 Grandview:
http://sciencepolicy.colorado.edu/center_info/find_us.html

Class time: Tuesdays 11:00-1:30
Office Hours: Tuesdays, 9:15-11:00 and by appointment
Location: CIRES Center for Science and Technology Policy, 1333 Grandview Ave.
http://sciencepolicy.colorado.edu/center_info/find_us.html
Phone: 303-735-3940 (direct, but no voice mail)
email: pielke@colorado.edu
Purpose of the Course and Expectations

The course has two basic goals. First, to discuss issues arising at the intersection of policy, science and the environment that create challenges for effective decision making; and second, to introduce you to conceptual tools which are useful in thinking more effectively and responsibly about any problem of policy; and third, to develop and practice skills using the tools to analyze the various dimensions of an policy issue. To meet these goals, the course focuses on three primary activities: (1) core readings and discussion on aspects of environmental policy and the policy sciences; (2) periodic individual and shared assignments on substantive issues; and (3) a semester-long term project to be completed in groups.

Please note that six books are required reading for this course, other readings are either selected chapters or journal articles.

What you will get out of this class is proportional to what you put into the class. A good deal of the substantive material that we discuss will be brought to the class by you -- through the term project and our class discussions of the readings. Thus, it is critical to treat the term project as a semester-long effort, and not a final-week rush.

In order to get the most out of this course, you will need to come to class prepared, participate, and complete all of the assignments. I encourage you to use the office hours as an opportunity to discuss in more detail certain aspects of the course, share ideas on your case study, and to provide feedback on the course and the readings. The remainder of this syllabus details some of the important aspects of this course.

Course Texts

We will read each of the following books. These have been ordered through the CU Bookstore, are available online at the usual retailers, and will also be placed on reserve in Norlin Library.


**Requirements of the Course**

**Weekly Email One Pagers**

Every week you are expected to turn in a one-page essay. We have established a list-serv for the course: envs5000@sciencepolicy.colorado.edu. Details will be provided in class. These should be submitted by the Sunday immediately preceding the relevant class. For some weeks I will suggest a question or theme to be addressed; for other weeks the topic will be open ended. The purpose of this exercise is to allow you an opportunity to discuss aspects of the readings, integrate other material with the week’s focus, or to raise questions about what was unclear or unanswered by the readings. A secondary purpose is to ensure that you have an opportunity to provide me with feedback on the class and your progress/satisfaction in the course.

**Individual and group assignments**

Periodically throughout the semester you will be responsible for individual and group assignments related to the week’s readings and topic. These will be discussed as the semester progresses. Some of the assignments will be associated with the semester-long term project.

**Term Project**

You will be responsible for a semester-long research project. The project will involve a final report, a website, and an oral presentation at the end of the semester. The project will involve various assignments during the semester that will comprise part of your project grade. The term project will be described separately.

**Grading**

Your grade will be determined as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly one pagers</td>
<td>15%</td>
<td>(no late submissions)</td>
</tr>
<tr>
<td>Individual and group assignments</td>
<td>35%</td>
<td>(periodically)</td>
</tr>
<tr>
<td>Term project</td>
<td>50%</td>
<td>(described in more detail separately)</td>
</tr>
</tbody>
</table>
University Syllabus Statements

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and www.Colorado.EDU/disabilityservices

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, {{insert your procedures here}} See full details at http://www.colorado.edu/policies/fac_relig.html

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See polices at

http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

The University of Colorado at Boulder policy on Discrimination and Harassment (http://www.colorado.edu/policies/discrimination.html), the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/.
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Tentative Schedule and Readings

Week 0; 8-25-09    No class

Please read Hulme, Why We Disagree About Climate Change

Week 1: 9-1-09    Introductions
Overview of the Course
Schedule Matters
Discussion of Hulme

Additional reading:

http://pup.princeton.edu/sunstein/echo.pdf

9-3-09 The First 300 Days: An Assessment of Obama's Energy and Climate Policy  
(required attendance)

Panel Discussion  
7:00 - 9:00 pm  
University of Colorado School of Law,  
Wolf Law Building, Wittermyer Courtroom

Week 2: 9-8-09    Evaluating Knowledge Claims

University of Chicago Law & Economics, Olin Working Paper No. 298  
Available at SSRN: http://ssrn.com/abstract=911646


Rutgers University Press.

Case study: *Has global warming stopped?*

**Week 3: 9-15-08   Problem Orientation (Guest Lecture: David Cherney)**


For further reading:


**Week 4: 9-22-09   Introduction to the Federal Budget Process**


Plus the Appendix:  

**More than you want to know:**
http://www.cbo.gov/
http://www.whitehouse.gov/omb/
http://www.senate.gov/~budget/democratic/budprocess.html
http://www.whitehouse.gov/omb/budget/fy2004/
http://www.house.gov/budget/
http://www.house.gov/budget_democrats/
http://www.senate.gov/~budget/democratic/
http://www.senate.gov/~budget/republican/

**Week 5: 9-29-09**  **Decarbonization – Energy basics**


Smil – Energy at the crossroads
Mackay – pp. 1-28, and pp. 328-337, read more as desired

**Week 6: 10-6-09**  **Decarbonization -- Applications**


Case study: United States

**Week 7: 10-13-09**  **Guest lecture - TBA**

**Week 8: 10-20-09**  **Student decarbonization presentations/projects due**

**Week 9: 10-27-09**  **Adaptation**
Week 10: 11-3-09  Technological Fixes and Backstops


An Analysis of Climate Engineering as a Response to Global Warming, by Dr. J Eric Bickel and Lee Lane.  

Reponses:

Pielke,  

Smith.  


Week 11: 11-10-09 Student adaptation presentations/projects due

Week 12: 11-17-09  Politics of Climate Change

Examples of different perspectives:


Chakravarty et al. 2009. Sharing global CO2 emission reductions among one billion high emitters, PNAS

Week 13: 11-24-06 NO CLASS – HAPPY THANKSGIVING

Week 14: 12-01-09 Democracy and Expertise

What is/are the role(s) of the expert in a democracy?


Optional:


Week 15: 12-08-09 Course Wrap Up/Grad Student panel


ENVS Grad Student panel


**Week 16: 12-12-09  7:30-10:00PM Final Exam**