

ENVS 420/520 Interdisciplinary Perspectives on Nature and Society

Why are we failing to respond adequately to climate change? What can we do to really make a difference?

Spring 2007, Prof. Peter Walker, GTF Will Truce TuTh 10-11:50, 204 Chapman



Dolphins, cockroaches, and vampire bats understand that cooperation is the key to survival. Why don't we?¹ The current US administration has moved from outright denial (see above) to acknowledging growing risks to water supplies, coasts, and ecosystems around the United States predicted as a result of the atmospheric buildup of carbon dioxide and other heat-trapping greenhouse gases. Most Americans believe climate change is real, and that actions should be taken. Yet, effective collective actions to prevent possible mass global extinctions (including ourselves) seem to elude us. In the United States, emissions of gases that contribute to global climate change are growing at the same rate that they did a decade ago. So, why does a species that thinks itself the most intelligent on the planet seem incapable of acting to prevent its own possible destruction? Greedy businesses and shortsighted leaders are clearly a problem; but leaders get away with inaction because *the public, as a whole, does not see limiting climate change as an urgent priority*.

We need a massive change of public attitudes. We can't afford to wait for political "leaders". It's up *us*. But what can we do to increase public awareness and action? As the brain trust of society, students, scholars and university campuses have historically been a key catalyst of social change. If the public and the leaders they elect don't care enough about climate change to act decisively, we must ask, what are *we* failing to do? Why is this such a tough problem? *What can we do now to make a real difference?* These are the questions this course will examine from a variety of *interdisciplinary perspectives*.

Most importantly, **this class will act on these questions. This course is highly participatory.** Grades are based on: 1) student contributions in the classroom to discussing the practical lessons from our interdisciplinary readings; and 2) participation in class projects that apply ideas from the class by *organizing and producing a real-life, public "teach-in"* and related activities to raise public awareness of the issue and present ideas and information about how the campus community can stimulate public consciousness and action.

¹ Julia Whitty 2006 "The Thirteenth Tipping Point" *MotherJones* Nov-Dec, 45-51, 100-101

Participatory projects:

The main assignment for this course will be a participatory public “teach-in” organized by students. There will be no exams, no term papers. Instead, all students in the course will contribute to the teach-in on the evening of June 7. Prominent experts and invited political leaders will speak at the public event, and all members of the public and campus community, as well as the print and broadcast media, will be invited. The event will be kicked off with a “welcome” video prepared by University President Dave Frohnmayer, who has recently signed the University Presidents’ Climate Commitment. All students will make some contribution to organizing and publicizing the teach-in. Also, at the beginning of the course, students will also break into smaller, focused public education project teams (see below). At the teach-in, each project team will make a 5-minute presentation and a poster about their team’s activities.

Small-team projects: At the beginning of the term students will choose to participate in one of the following projects. Students will be encouraged to request their preference of projects, and the instructor and GTF will try—but can’t promise—to give each student their first or second choice. Each team will focus on ways to apply the information, concepts, and lessons from our course readings (which represent an array of *interdisciplinary* scholarship on the topic of global warming) and in-class discussions to a “real world”, hands-on project. Teams will meet outside class at least once a week. Students are expected to commit about three hours per week to the projects. Prospective tasks for our small-team projects include:

- Create and maintain a class web page with information sources about local climate change activities
- Create webcasts and/or podcasts of class activities and information about climate change
- Create a Facebook page for the class
- Organize a voter education drive to increase awareness and understanding of the issues involved in an upcoming ASUO ballot initiative on the UO’s response to climate change
- Conduct research on the retreat of glaciers on Mt. Hood
- Create a lesson plan for a K-12 classroom education project on climate change
- Organize a wind energy campaign for the UO dorms
- Create a database and distribution list of media coverage of climate change
- Conduct a campus-wide survey of climate change awareness and attitudes on campus
- Create a Spanish-language outreach campaign
- Other activities proposed by students in the class

On May 1, each of the small groups must submit a 2-page written project proposal/description and questions to Professor Walker & GTF Will Truce. On May 17, the first of five in-class small-group project practice presentations will begin. In the following four class sessions, each project team will take a turn presenting. The teams will speak for 5 minutes, followed by 15 minutes of feedback from the whole class.

Grading: Course grades will be assigned as follows: 1) reading responses and in-class participation and discussion of required reading materials for each day’s class (see below)—50%; 2) participation in the small-team projects and contributions to the end-of-the-term teach-in (see below)—50%.

Classroom participation: Each class period will have a small set of required and optional readings (see below). Each student *must* bring a 1-page written response to each set of readings. The written response must clearly identify: a) What are the most important ideas in each *set* of readings?; b) Why are these ideas significant (or why not—defend your position); c) How do the ideas presented in the readings relate to our participatory projects?—in other words, what do these ideas mean in practical terms of how we should respond to the issue of climate change in “real-life”? d) What questions, if any, do these readings leave unanswered? For each class session, Peter and Will will lead the class in discussing these points. You should think carefully about how these readings and discussions relate to what we do in our teach-in and your small-group project. Your grade will be assigned on the basis of the quality of your written and in-class responses. Your in-class participation and written responses will be assessed by Peter and Will. As instructors, we understand that different students will come to the class with different levels of knowledge about the subject and different levels of comfort with public speaking. You will be graded

on demonstrated effort in the written responses and the quality of your contributions to the discussion (not merely on volume of words).

Participatory projects: Student grades in the participatory projects will be primarily based on *peer-evaluation* and individual student *activity journals* recording individual contributions to the team projects. Each member of each small-team project will anonymously evaluate the contributions of the other members of the project, and these anonymous evaluations will be handed in to Peter and Will. Each student will have an opportunity to read the peer evaluations of her/his contributions to the projects. If an individual student disagrees with the peer evaluations, s/he will have the opportunity to clarify his/her position to Peter and Will individually and anonymously. Further evaluation of individual student contributions to the participatory projects will be made on the basis of a journal/notebook in which each student will record each of their individual contributions to the small-group projects and to the teach-in. Peter and Will will assign final project participation grades on the basis of peer evaluations, individual consultations with students if requested, and the quality of individual participation as recorded in individual journals. It is imperative that students record each activity/contribution to the projects as these take place, rather than at the end of the course (when memories of activities will have faded).

Keeping it in the here and now:

Global warming/climate change is a topic that is in the news frequently as the science, culture, and politics of the issue develop. As scholars and activists, the quality of our work depends fundamentally on remaining well informed about recent developments on this topic. The quality of classroom discussions and contributions to the participatory projects in this course will be greatly enhanced by regularly monitoring recent events in the news from sources such as:

- *Global Warming in the News:* <http://globalwarminginthenews.com/>
- *Climate Wire:* <http://www.climatewire.org/>
- *The Washington Post's* climate section:
- <http://www.washingtonpost.com/wp-dyn/content/linkset/2006/05/03/LI2006050300853.html>
- *The New York Times's* environment & earth science section:
- <http://www.nytimes.com/pages/science/earth/index.html>
- BBC's climate section:
http://news.bbc.co.uk/2/hi/science/nature/portal/climate_change/default.stm
- For articles about business and climate:
http://www.gsb.stanford.edu/library/articles/hottopics/climate_change.html
- Union of Concerned Scientists' global warming page: http://www.ucsusa.org/global_warming/
- Intergovernmental Panel on Climate Change (IPCC): <http://www.ipcc.ch/>
- ABC News global warming page: <http://abcnews.go.com/Technology/GlobalWarming/>
- *Science Daily* global warming news:
http://www.sciencedaily.com/news/earth_climate/global_warming/

In the project groups, each team member should be responsible for monitoring the news on at least one of these sites (or other proposed sites—check with Will or Peter) each week and reporting back to the group on any developments that are particularly relevant to the group project.

Readings:

There are three required books for this class, as well as selected articles. The required books are: *The Rough Guide to Climate Change* by Robert Henson (2006); *Field Notes from a Catastrophe* by Elizabeth Kolbert (2006); *Hell and High Water* by Joseph Romm (2007). These books are available on Amazon.com and altogether cost \$44 including shipping. Peter will discuss options for a group purchase. All articles will be posted in PDF format on blackboard.uoregon.edu. All readings are required unless indicated. Note that readings are subject to change as new readings may become available during the term. You will be notified verbally and by e-mail about any changes. Check Blackboard frequently for updated reading assignments.

COURSE OUTLINE

APRIL 3: Introduction and organizing. Guest Steve Mital, Environmental Leadership Coordinator

APRIL 5: Organizational skills. Guests speakers Steve Mital, Jenny Bedell-Stiles, Jesse Jenkins

PART I: FRAGMENTED KNOWLEDGE, AND PUTTING THE PIECES BACK TOGETHER

APRIL 10: On the origins of disciplinary ways of thinking about the natural world

Worster, Donald. 1994. *Nature's economy: a history of ecological ideas*. 2nd ed. Cambridge; New York: Cambridge University Press. Ch. 2 "The Empire of Reason"

Norgaard, Richard B. 1994. *Development betrayed: the end of progress and a coevolutionary revisioning of the future*. London; New York: Routledge. Ch. 6 "The Philosophical Roots of the Betrayal" and Ch. 9 "A Coevolutionary Cosmology"

APRIL 12: On interdisciplinarity and environmental knowledge

Norgaard, R. B., and P. Baer. 2005. Collectively seeing climate change: The limits of formal models. *Bioscience* 55 (11):961-966.

Lele, S., and R. B. Norgaard. 2005. Practicing interdisciplinarity. *Bioscience* 55 (11):967-975.

Norgaard, R. B. forthcoming. Finding Hope in the Millennium Ecosystem Assessment. *Science*.

Recommended:

Norgaard, R. B., and P. Baer. 2005. Collectively seeing complex systems: The nature of the problem. *Bioscience* 55 (11):953-960.

Latour, Bruno. 1993. *We have never been modern*. Cambridge, Mass.: Harvard University Press.

APRIL 17: Humans and climate change in history

Gore, Albert. 2006. *Earth in the balance: ecology and the human spirit*. [New York]: Rodale. Ch. 3, "Climate and civilization: a short history"

Glantz, Michael H. 2003. *Climate affairs: a primer*. Washington, DC: Island Press. Excerpts: "Seasonality", pp. 32-41; "Three perspectives about climate", pp. 42-48; "Africa", pp. 89-98

deMenocal, P. B. 2001. Cultural responses to climate change during the Late Holocene. *Science* 292 (5517):667-673.

APRIL 19: The politics of environmental knowledge

Litfin, Karen. 1994. *Ozone discourses: science and politics in global environmental cooperation*. New York: Columbia University Press. Ch. 2 "Power and scientific discourse"

Jasanoff, S. 2003. Technologies of humility: Citizen participation in governing science. *Minerva* 41 (3):223-244.

Lakoff, George. 2004. Winning words. *Sierra Magazine* (July/August).

Recommended:

King, D. A. 2004. Environment - Climate change science: Adapt, mitigate, or ignore? *Science* 303 (5655):176-177.

PART II: PERSPECTIVES ON CLIMATE CHANGE SCIENCE & ETHICS

APRIL 23: SPECIAL EVENT (recommended but not required):

Video: *An Inconvenient Truth*, 7:00pm (room TBA)

APRIL 24: Global climate change science & ethics: introduction and overview

Kolbert Ch. 1 "Shishmaref, Alaska"

Henson, "Climate change: a primer", pp. 3-18

Gardiner, S. M. 2004. Ethics and global climate change. *Ethics* 114 (3):555-600.

Revkin, A. C. 2007. Poor nations to bear brunt as world warms. *New York Times*, April 1

Recommended:

IPCC 2007 4th Assessment Report Policymakers' Summary <http://www.ipcc.ch/SPM2feb07.pdf>

APRIL 26: Global climate change science: warming

Kolbert Ch. 2 "A warmer sky"

Henson, "The greenhouse effect" pp. 19-30 & "Extreme heat" pp. 43-54

Romm Ch. 1 "The climate beast"

MAY 1: Global climate change science: melting

Kolbert Ch. 3 "Under the glacier"

Henson, "The Big Melt" 71-99

☞ **TWO-PAGE WRITTEN PROJECT DESCRIPTION DUE IN CLASS** ☞

MAY 3: Global climate change science: sea level rise

Kolbert Ch. 6 "Floating houses"

Henson "Floods & droughts" pp. 55-70 & "Oceans" pp. 101-120

Romm Ch. 4 "Hell and high water"

MAY 8: Global climate change science: drought

Kolbert Ch. 5 "The curse of Akkad"

Romm Ch. 3 "Planetary purgatory"

MAY 10: Global climate change science: storms

Henson "Hurricanes & other storms" pp. 121-138

Romm Ch. 2 "Reap the whirlwind"

MAY 15: Global climate change science: agriculture, ecosystems, & extinction

Kolbert Ch. 4 "The butterfly and the toad"

Henson "Ecosystems & Agriculture" pp. 139-158

PART III: CLIMATE CHANGE POLITICS

MAY 17: Politics: The skeptics, the blame game, and other excuses for inaction

Henson "A heated debate" pp. 235-261

Romm Ch. 5 "How climate rhetorical trumps reality"

Henson "Who's responsible?" pp. 31-40

Romm Ch. 9 "The U.S.-China suicide pact on climate"

☞ **1st SMALL-GROUP PRACTICE PRESENTATION AND CLASS FEEDBACK** ☞

MAY 22: Politics: The media. Guest speakers Prof. Carol Ann Bassett and Prof. Jon Palfreman

Romm Ch. 10 "Missing the story of the century"

Boykoff, M. T., and J. M. Boykoff. 2004. Balance as bias: global warming and the US prestige press. *Global Environmental Change-Human And Policy Dimensions* 14 (2):125-136

Boykoff, M.T., and J. M. Boykoff. 2007. Climate change and journalistic norms: A case-study of US mass-media coverage. *Geoforum* (in press)

Tony Leiserowitz "Before and After The Day After Tomorrow" *Environment* November 2004, 22-44

☞ **2nd SMALL-GROUP PRACTICE PRESENTATION AND CLASS FEEDBACK** ☞

MAY 24: Politics: Risk perception & response. Guest speaker Prof. Jon Palfreman.

Palfreman, Jon. 2006. A tale of two fears: exploring media depictions of nuclear power and global warming. *The Review of Policy Research* 23 (1):23(21).

Leiserowitz, A. 2006. Climate change risk perception and policy preferences: The role of affect, imagery, and values. *Climatic Change* 77 (1-2):45-72.

☞ **3rd SMALL-GROUP PRACTICE PRESENTATION AND CLASS FEEDBACK** ☞

MAY 29: Politics: Kyoto & beyond

Kolbert Ch. 8 "The day after Kyoto"

Henson "Political solutions" pp. 270-287

Roberts, J. T. 2001. Global inequality and climate change. *Society & Natural Resources*. 14:501-509

Recommended:

Schellenberger, Michael, and Ted Nordhaus. 2004. The Death of Environmentalism.

☞ **4TH SMALL-GROUP PRACTICE PRESENTATION AND CLASS FEEDBACK** ☞

MAY 31: Solutions: Can we prevent catastrophic climate change?

Henson "The predicament" pp. 262-269

Kolbert Ch. 7 "Business as usual" & Ch. 9 "Burlington, Vermont"

☞ **5TH SMALL-GROUP PRACTICE PRESENTATION AND CLASS FEEDBACK** ☞

JUNE 5: Solutions: We *have* the technology...

Henson "Technological solutions" pp. 288-312

Romm Ch. 7 "The electrifying solutions" & Ch. 8 "Peak oil, energy security, and the car of the future"

Recommended:

Scientific American magazine Sept. 2006, 295(3) Special issue: Energy's future beyond carbon

JUNE 7: Solutions: ...but do we have the will?

Whitty, Julia. 2006. The Thirteenth Tipping Point: Twelve Global Disasters and One Powerful Antidote. *Mother Jones*:44-51, 100-101. (http://www.motherjones.com/news/feature/2006/11/13th_tipping_point.html)

Emanuel, Kerry. 2007. Can We Stop Global Warming? Phaeton's Reins: The Human Hand in Climate Change. *Boston Review* (January/February)

7:00pm: TEACH-IN WITH LAW PROFESSOR MARY WOOD, PHYSICS PROFESSOR GREG BOTHUN, GEOGRAPHY PROFESSOR PAT BARTLEIN, CONGRESSMAN PETER DEFAZIO(tentative) AND YOU! 100 WILLAMETTE HALL

Note: this syllabus is *always* under construction