

Climate Change: Politics & Policy

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1. Course Overview

This course examines key political, policy, economic, and scientific issues surrounding global climate change. Topics include: the causes and impacts of climate change; the politics of climate science; policy-making under uncertainty; climate policy at the global, national, state and local levels; the politics of climate change in the United States and globally; technology and energy options; the economics of climate change; and ethical issues. Students will gain the ability to understand information regarding climate change and to analyze climate policy options at the global, national and local levels.

2. Course Requirements

THE POLITICS OF CLIMATE SCIENCE: BOOK & REPORT SUMMARY AND EVALUATION: 12 points (12% of the final grade). A summary and evaluation of the major arguments in both an assigned book OR an assigned report on the arguments of climate change skeptics. Details distributed separately. Due session 5.

CLIMATE READING AND EVENT SUMMARY LOG: 20 points (18% of the final grade). Due no later than Session 12. Details distributed separately.

PAPER/PROJECT: 30 points (30% of the final grade). A 10 page paper examining a specific issue related to climate change. If you pick a narrow topic, start soon, and have fun, then you will do well. These can be done individually or in groups of 2-3. Group papers must be longer and more detailed. All papers are due no later than Session 15. You **MUST** submit a topic to the instructor via email by Session 5 (or lose a point). Details at the end of syllabus.

FINAL EXAM: 33 points (33% of the final grade). The exam will include short answer, definition, multiple choice and 1-2 short essay questions. I will distribute a study guide 5 class sessions before the exam. Come to class, do the reading each week, study, and use the study guide and you can do very well on the exam.

PARTICIPATION. 5 points (5% of the final grade). Your participation represents an important component of the course. Do not be worried about speaking in class. We are here to learn from each other.

So talk, ask questions, express opinions and link material in the course to specialized knowledge you may have on particular subjects. Preparation, effort, and thoughtful, getting the book and paper topics to me on time (1 point) and useful participation in class discussions will yield a high participation grade. Activities that will yield a very low participation grade include being late, a pattern of unexcused absences, not being prepared, never participating in discussion, and texting, web surfing, snoring, emailing, arson, or similar activities during class. No non-course electronic related activity during class. It is ok to bring coffee or other drinks to class but please clean up. Attendance is mandatory unless you notify me in advance or otherwise have an excusable absence. In other words, be professional or take another class.

GRADING

The assignments, paper, and exam total 101 points. 1 extra credit point is also available. 100-93 total points for the term will earn you an A. 92-90 points will earn an A-. 89-87 points a B+. 86-83 a B. 82-80 a B-. 79-77 points a C+. 76-73 a C. 72-70 a C-. 69-60 a D. Below 60 is an F.

3. Course Materials:

- Pamela Chasek and David Downie. *Global Environmental Politics*, Fifth Edition (Westview Press, 2010) – via online booksellers.
- Anthony Giddens. *The Politics of Climate Change*, 2nd Editions. Polity Press: 2011. ISBN: 978-0-7456-5515-4
- James Hoggan (with Richard Littlemore). *Climate Cover-Up: The Crusade to Deny Global Warming*. ISBN: 978-1-55365-485-8
- Other readings will be available on the internet. Students should sign up for the EESI weekly climate news email (<http://www.eesi.org/ccn>) – Important for papers.

4. Course Topics, Assigned Readings And Discussion Questions

Syllabi are working documents and this one could change during the term. Readings marked with one or two * are required. The ** designation relates to the log. Please note, the readings are not listed in order of importance but it can be helpful to read them in the order they appear. Near the start of most classes, I will preview, prioritize and sometimes shorten the readings for the following week. I do not expect you to read any non * or ** readings. I

list these only to provide additional starting points for students interested in that topic. There is no perfect reading list and I welcome written suggestions for additions or subtractions. Readings are heavy during the first few weeks to build a common knowledge base and to provide many options for the reading summaries but become far lighter during the second half of the course when students are finishing their papers and preparing for final exams.

5. Course Outline

Session 1: Course Overview

Climate Science Basics – Policy Relevant Scientific Knowledge

Discussions Questions/Issues:

What do these terms mean: The Climate System, Carbon Cycle, Radiation Balance, Greenhouse Gases, Greenhouse Effect, Sinks, Global Warming, and Climate Change? How do we know the world is warming? What evidence exists? How do we know human activity is causing the warming? How do we know this warming will cause negative impacts? What are some of the arguments by climate change deniers? What are the responses?

2: (1) Climate Science Basics – Continued

(2) The Impacts of Climate Change

(3) Evaluating Major Science Arguments by Climate Skeptics

Readings:

* The Discovery of Global Warming: Hyperlinked History of Climate Change Science, www.aip.org/history/climate/summary.htm

* Downie, Brash and Vaughan, preface and pp. 1-24, **42-69, 185-193, 197-203, 227-229, 230-231, and ch. 4 (chronology) – this book is available via FFU library as a website and I will also email chapters to you as PDFs.

** Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC AR4): *Climate Change 2007: Synthesis Report*. Read the Introduction and Sections 1-3 in “The Summary for Policy Makers,”

http://www.ipcc.ch/publications_and_data/ar4/syr/en/spm.html.

** US Global Change Research Program, *Global Climate Change Impacts in the United States*, ** “Executive Summary,” and ** “National Climate Change.”**

<http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/download-the-report>

** *Climate Change - Addressing the Major Skeptic Arguments***.

Intergovernmental Panel on Climate Change, Forth Assessment Report (IPCC AR4), Working Group I Report: *Climate Change 2007: The Physical Science Basis*, "The Summary for Policy Makers," pp.1-18 and "Frequently Asked Questions," pp. 94-127. Available on IPCC website.

Intergovernmental Panel on Climate Change, Forth Assessment Report (IPCC AR4), Working Group II Report: *Climate Change 2007: Impacts, Adaptation and Vulnerability*, "The Summary for Policy Makers," pp.1-24. Available on IPCC website, www.ipcc.ch.

Aneire Kahn, et al. "Climate Impacts in Bangladesh." *Environment*, Vol. 53, No. 5 (September/ October 2011), pp. 18-33.

Gregory White. *Climate Change and Migration: Security and Borders in a Warming World*.

Oxford University Press, 2011

UNEP/CMS News Release, 25 November 2011. "Protecting Migratory Animals in a Warming World UN Wildlife Conference Agrees on Ambitious Targets for Migratory Species Hit by Climate Change."

Heidi Cullen. *The Weather of the Future: Heat Waves, Extreme Storms, and Other Scenes from a Climate-Changed Planet*.2010, QC903 .C85 2010

Websites: www.CAMELclimatechange.org; <http://www.climatescience.gov/>;
<http://www.teachingclimatelaw.org>;
<http://www.climatescience.gov/Library/scientific-assessment/>;
<http://www.climatescience.gov/Library/scientific-assessment/6-SA-FAQ-LO-RES.pdf>;
<http://www.climatescience.gov/Library/sap/sap4-3/final-report/default.htm>;
<http://www.iiasa.ac.at/Research/PCC/learn-conf/learning%20SI/index.html>;
<http://www.climatescience.gov/Library/sap/sap3-3/final-report/default.htm>;
http://www.climate.noaa.gov/index.jsp?edu=literacy&pg=/education/edu_index.jsp

Sample of Online Video: Glaciers - <http://dsc.discovery.com/videos/an-inconvenient-truth-glacier-comparison.html>; Alaska impacts - <http://news.discovery.com/videos/earth-signs-of-climate-change-in-alaska.html>; Amazon - <http://dsc.discovery.com/videos/global-warming-what-you-need-to-know-amazon-tipping-point.html>; polar bears - <http://dsc.discovery.com/videos/global-warming-what-you-need-to-know-polar-bear-signs.html>; Hurricanes - <http://planetgreen.discovery.com/videos/focus-earth-hurricanes-and-climate-change.html>; reefs - <http://dsc.discovery.com/videos/global-warming-what-you-need-to-know-great-barrier-reef.html>; glaciers - <http://dsc.discovery.com/videos/global-warming-what-you-need-to-know-great-barrier-reef.html>; glaciers and drinking water - <http://dsc.discovery.com/videos/global-warming-what-you-need-to-know-great-barrier-reef.html>

Discussions Questions/Issues: What do these terms mean: The Climate System, Carbon Cycle, Radiation Balance, Greenhouse Gases, Greenhouse Effect, Sinks, Global Warming, and Climate Change? How do we know the world is warming? What evidence exists? How do we know human activity is causing the warming? How do we know this warming will cause negative impacts? What are some of the arguments by climate change deniers? What are the responses?

What will be the major types of impacts of climate change? Do we know when impacts will occur? Why should we care? What should we do? What are some specific expected potential impacts? What impacts have already started to occur? How will they impact human quality of life? What policy questions arise? How expensive will they be? Will they be more expensive than preventing them?

3: GHG Emissions, Broad Policy Options, and Response Perspectives

(1) Global, National, Individual and Comparative Greenhouse Gas Sources and Emissions.

(2) How Much Do We Need To Reduce Emissions? Does Climate Science Provide Answers for Policymakers? IPCC Conclusions and Current National and International Goals and Characterizations of Cost Estimates

(3) Mitigation or Adaptation.

(4) Cost Perspectives

(5) The Interaction of Climate Science and the Policy Arena: Policy Choices Under Uncertainty and the Precautionary Principle.

Readings:

* "List of countries by carbon dioxide emissions" (both 2008 totals and % and 2010 totals). http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions#List_of_countries_by_2010_emissions_estimates

* Downie, Brash and Vaughan, pp. 5-10; 24-36; **62-84; 179-180.

** short video: <http://www.youtube.com/watch?v=zORv8wwiadQ&feature=fvw> **

* Chasek and Downie, pp. 30-50.

** Giddens, Chapters **1 and ** 3.

* "Stern Review on the economics of climate change"
www.direct.gov.uk/en/N11/Newsroom/DG_064854

** *Stern Review: The Economics of Climate Change*, "Executive Summary."
<http://siteresources.worldbank.org/INTINDONESIA/Resources/226271-1170911056314/3428109-1174614780539/SternReviewEng.pdf>

* UNEP News Release, "Bridging the Emissions Gap to Meet 2-Degree Target Do-able: New UNEP Report Outlines Pathways to 2020 Able to Deliver Additional 6 to 11 Gigatonne Cuts Needed to Get World onto Safe Track." – To be distributed.

2011 U.S. Greenhouse Gas Inventory Report, "Executive Summary"
<http://epa.gov/climatechange/emissions/usinventoryreport.html>

Intergovernmental Panel on Climate Change, Forth Assessment Report (IPCC AR4), WG III Report: *Climate Change 2007: Mitigation of Climate Change*, "The Summary for Policy Makers," pp.1-24. Available on IPCC website, www.ipcc.ch.

Discussions Questions/Issues: What countries have the highest GHG emissions? What countries have the highest per-capita emissions? Why does this matter? What differences exist between the sources of emissions (energy, deforestation, etc) between countries? Why does this matter? What economic sectors produce GHG gas emissions? Does this vary across countries? Do we know enough about the causes and impacts of climate change to make policy? Do we know enough to take drastic measures to reduce GHG emissions? Can we act without perfect information? What is the precautionary principle? How does it relate to climate change? What goals have or should be set – long-term and short-term/? Why? What is the mitigation? Adaptation? Are they mutually exclusive policies? Which should we pursue and why? What does "Common but Differentiated Responsibilities" mean? What is the precautionary principle? What is the polluter pays principle? What is the central argument about the links between environment and security as discussed in Chasek and Downie (pp. 41-44, see bottom of p. 41)? How does this relate to climate change?

4: (1) Actors in Climate Policy and Politics

(2) Basic Information on Global Climate Policy and Politics

(3) Obstacles to Effective Global Climate Policy

(4) Do Other Issues Provide Clues to Overcome these Obstacles?

Readings:

** Chasek and Downie, chs. **1 (some pages previously assigned), **2, **3, **4 and **6.

** T. Dietz, E. Ostrom and P. Stern, "The Struggle to Govern the Commons" *Science*, 302, pp. 1907-1912.

Discussions Questions/Issues: Who are the main actors in global environmental politics? What roles do each play? How do they relate to climate change? What are the main elements of the ozone and climate regimes? Why was one successful and the others were not? What are the main categories of obstacles to effective international environmental policy? What are the main types of obstacles within each category? How does each potentially relate to climate change? What does "Common but Differentiated Responsibilities" mean? What is the precautionary principle? What is the polluter pays principle? What are some of the relations between trade and the environment and how do these relate to climate change? Can a country restrict certain types of imports to address a national or global environmental issue? What is globalization? Why does it matter for climate change – positively and negatively? What is the central argument about the links between environment and security as discussed in Chasek and Downie (pp. 41-44, see bottom of p. 41)? How does this relate to climate change?

5: The Politics of Climate Science.

Readings:

- * Giddens, pp. 21-32 and **chapter 3.
- * *Climate Change - Addressing the Major Skeptic Arguments***
- * James Hoggan, *Climate Cover-Up: The Crusade to Deny Global Warming*.
- * Steven Kolmes, "Climate Change - A Disinformation Campaign." *Environment*, Vol. 53, No. 4 (July/August 2011) pp, 33-37
- * Sandra Marquart-Pyatt. et al. "Understanding Public Opinion on Climate Change." *Environment*, Vol. 53, No. 4 (July/August 2011) pp, 39-41
- * Leo Hickman, *The Gaurdian*, "Leaked Heartland Institute documents pull back curtain on climate skepticism" <http://www.guardian.co.uk/environment/blog/2012/feb/15/leaked-heartland-institute-documents-climate-scepticism>
- * "Heartland Insider Exposes Institute's Budget and Strategy" See links to documents at bottom of Page: <http://www.desmogblog.com/heartland-insider-exposes-institute-s-budget-and-strategy>
- * Climate Skepticism Reaching Classrooms, Los Angeles Times, January 16, 2012. <http://articles.latimes.com/2012/jan/16/nation/la-na-climate-change-school-20120116>

US House of Representatives, Committee on Oversight and Government Reform, "Committee Report: White House Engaged in Systematic Effort to Manipulate Climate Change Science," December 2007: <http://oversight.house.gov/story.asp?ID=1653>

Raymond Bradley, *Global Warming and Political Intimidation: How Politicians Cracked Down on Scientists As the Earth Heated Up*.

N. Oreskes and E. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*.

James Hogan and Richard Littlemore, *Climate Cover-Up: The Crusade to Deny Global Warming*.

McCright, Aaron M., and Riley E. Dunlap. 2011. "The Politicization of Climate Change and Polarization in the American Public's Views of Global Warming, 2001-2010." *The Sociological Quarterly* 52:155-194. Abstract: Using ten years of Gallup poll data (2001-2010), this article is among the most exhaustive examination of political polarization on climate change within the U.S. general public. We find both ideological polarization and party polarization on climate change beliefs and concern over this time period. We also find that political orientation (ideology and party) moderates the relationship between educational attainment and self-reported understanding on one side and climate change beliefs and concern on the other. That is, the effects of educational attainment and self-reported understanding on global warming beliefs and concern are positive for liberals and Democrats, but are attenuated or negative for conservatives and Republicans.

- Antonio, Robert J., and Robert J. Brulle. 2011. "The Unbearable Lightness of Politics: Climate Change Denial and Political Polarization." *The Sociological Quarterly* 52:195-202.
- Nagel, Joane. 2011. "Climate Change, Public Opinion, and the Military Security Complex." *The Sociological Quarterly* 52:203-210.
- Jenkins, J. Craig. 2011. "Democratic Politics and the Long March on Global Warming: Comments on McCright and Dunlap." *The Sociological Quarterly* 52:211-219.
- Aaron M. McCright and Riley E. Dunlap, "Anti-reflexivity: The American Conservative Movement's Success in Undermining Climate Science and Policy" *Theory, Culture & Society* March/May 2010 27: 100-133
- McCright, Aaron M., and Riley E. Dunlap. 2011. "Cool Dudes: The Denial of Climate Change among Conservative White Males in the United States." *Global Environmental Change* 21:1163-1172. Abstract: We examine whether conservative white males are more likely than are other adults in the U.S. general public to endorse climate change denial. We draw theoretical and analytical guidance from the identity-protective cognition thesis explaining the white male effect and from recent political psychology scholarship documenting the heightened system-justification tendencies of political conservatives. We utilize public opinion data from ten Gallup surveys from 2001 to 2010, focusing specifically on five indicators of climate change denial. We find that conservative white males are significantly more likely than are other Americans to endorse denialist views on all five items, and that these differences are even greater for those conservative white males who self-report understanding global warming very well. Furthermore, the results of our multivariate logistic regression models reveal that the conservative white male effect remains significant when controlling for the direct effects of political ideology, race, and gender as well as the effects of nine control variables. We thus conclude that the unique views of conservative white males contribute significantly to the high level of climate change denial in the United States.
- Andrew J. Hoffman. "Talking Past Each Other? Cultural Framing of Skeptical and Convinced Logics in the Climate Change Debate." Ross School of Business Working Paper No. 1154, February 2011 Social Sciences Research Network Electronic Paper Collection: <http://ssrn.com/abstract=1768882>
- Howard Friel. *The Lomborg Deception : Setting the Record Straight about Global Warming*. 2010.
- Eric Pooley. *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*.

Discussions Questions/Issues: What is the Central Argument of Each Reading? Does the reading adequately support the argument? Which 'skeptical argument' had you heard before the class started? Do you find the response convincing? Why do Americans differ so strongly about climate change? Can one be a "conservative" and support policy to reduce GHG emissions? Can one be a 'liberal' and support it?

6: Introduction to Technology Options.

Readings:

- ** Giddens, ch. 6.
- ** Robert Socolow, R. Hotinski, J. Greenblatt, and S. Pacala, "Solving the Climate Problem: Technologies Available to Curb CO₂ Emissions," *Environment*, Vol. 46, No. 10 (December 2004), pp. 8-19, http://cmi.princeton.edu/wedges/pdfs/climate_problem.pdf
- * WRI, "Factsheet: Policy design for maximizing US wind energy jobs" (2 pages).
- ** Pew Center, "In Brief: Update on the 10-50 Solution: Progress Toward a Low-Carbon Future" <http://www.c2es.org/docUploads/10-50-brief-update.pdf>
- * T. Dietz, et al. "The Behavioral Wedge." Just the summary. <http://behavioralwedge.msu.edu/>
- * "Climate Proposal Puts Practicality Ahead of Sacrifice." http://www.nytimes.com/2012/01/17/science/countering-climate-change-without-waiting-for-a-payoff.html?_r=1&pagewanted=print
- * Atkinson, Nordhaus, et al. *Climate Pragmatism: Innovation, Resilience and No Regrets*, overview at http://thebreakthrough.org/blog/Climate_Pragmatism_web.pdf; If interested the entire 32 pp. report is at http://thebreakthrough.org/blog/2011/07/climate_pragmatism_innovation.shtml

Earth Negotiation Bulletin "Second Session of the Assembly of the International Renewable Energy Agency - Summary and Analysis" *ENB* Vol. 30 No. 6 - <http://www.iisd.ca/download/pdf/enb3006e.pdf>. Nothing of substance came out of meeting but there is now a new IO dedicated to renewable energy.

McKinsey and Company, "The Economics of Solar Power," http://www.mckinsey.com/clientservice/ccsi/pdf/Economics_of_Solar.pdf

McKinsey and Company, *The case for investing in energy productivity*, (Additional annual investments in energy productivity of \$170 billion through 2020 could cut global energy demand growth by at least half while generating average internal rates of return of 17 percent. Such outlays would also achieve significant energy savings and cuts in greenhouse gas emissions). <http://www.mckinsey.com/mgi/publications/> (must sign in)

Epstein et al. *Healthy Solutions for the Low Carbon Economy: Guidelines for Investors, Insurers and Policy Makers*. <http://chge.med.harvard.edu/programs/ccf/healthysolutions.html>

Peter Fox-Penner, *Smart Power : Climate Change, the Smart Grid, and the Future of Electric Utilities*. 2010, HD9685 .U5 F6144 2010b

Burton Richter. *Beyond Smoke and Mirrors : Climate Change and Energy in the 21st Century*. 2010. QC903 .R53 2010

Clean Energy Investment, Policymaker Summary. www.iisd.org/pdf/2008/cei_synthesis_sum.pdf

Company CO₂ Emission Targets: www.pewclimate.org/companies_leading_the_way_belc/targets/

Discussions Questions/Issues: Why is energy technology so important to the climate change issue? What widely used current energy technologies need to be replaced or re-engineered? What non-CO₂ emitting energy technologies are available now? Which ones should be pushed in which sectors? What are the cost and benefits, broadly defined (e.g. economic, environmental, human health, security, political, etc) of all the different existing CO₂ and existing and potential non- CO₂ emitting energy technologies?

7: The Basics of International Climate Policy and Politics – IPCC, UNFCCC, Kyoto Protocol, Copenhagen Accord, Durban, and Beyond

Readings:

** IPCC Brochure, “Understanding.” vailable online:

http://www.ipcc.ch/pdf/press/ipcc_leaflets_2010/ipcc-brochure_understanding.pdf

* Downie, Brash and Vaughan, pp. 23-36, 69-84

** Chasek and Downie, **ch. 4 (previously assigned), **ch. 7 and ch. 8.

** Introduction and “A Brief Analysis of the UNFCCC and the Kyoto Protocol.” Pp. 1-3, In Earth Negotiations Bulletin, “*Summary of The Durban Climate Change Conference: 28 November - 11 December 2011*” to available

www.iisd.ca/process/climate_atm-fcccintro.html and

www.iisd.ca/process/climate_atm-fcccintro.html

** Durban Negotiation Summary: “A Brief Analysis of COP 17 AND CMP 7,” Pp. 29-31 In Earth Negotiations Bulletin, “*Summary Of The Durban Climate Change Conference: 28 November - 11 December 2011*” available

www.iisd.ca/process/climate_atm-fcccintro.html and

www.iisd.ca/process/climate_atm-fcccintro.html

* UNEP Prelease, 11 December 2011: “Climate Talks End With Hope for a New More Comprehensive Legally-Binding Agreement.” To be distributed

** Rafael Leal-Arcas, “Kyoto and the COPs: Lessons Learned and Looking Ahead.” *Hague Yearbook of International Law*, Vol. 23, pp. 17-90, 2011 *This abstract only:* This article argues that the Kyoto Protocol to the 1992 Framework Convention on Climate Change (UNFCCC) was doomed to fail because it systematically misunderstood the nature of climate change as a policy issue between 1985 and 2009. It explains why this is the case by analyzing the Kyoto Protocol’s shortcomings and deficiencies. Moving the climate change agenda forward multilaterally among the 195 parties to the UNFCCC is proving to be a serious challenge. The lack of progress in UNFCCC negotiations in recent years, especially the failure to obtain an international agreement on emissions limitations targets and timetables by all major developed and developing country emitters, has led many to question whether the UNFCCC is, in fact, the best and most effective forum for mobilizing a global response to climate change. The current approach to negotiating a comprehensive, universal, and legally binding global agreement on climate change is unlikely to succeed. The near-disaster 2009 Conference of the Parties-15 in Copenhagen empirically demonstrated that the UN machinery is incapable of moving forward fast

enough to produce a global climate deal. Moreover, international climate policy, as it has been understood and practiced by many governments of the world under the Kyoto Protocol approach, has failed to produce any discernible real world reductions in emissions of greenhouse gases since the mid 1990s.

UNFCCC Secretariat, "The Kyoto Protocol"

http://unfccc.int/kyoto_protocol/items/2830.php

IPCC website (ipcc.ch): "Organization", "Structure" and "History" all available via links on left side of <http://www.ipcc.ch/organization/organization.shtml> -

Copenhagen Accord,

<http://www.un.org/wcm/content/site/climatechange/lang/en/pid/5800>

Summary of The Copenhagen Climate Change Conference, Earth Negotiation

Bulletin, <http://www.iisd.ca/vol12/enb12459e.html> and photos,

<http://www.iisd.ca/climate/cop15/>

Summary of The Cancun Climate Change Conf, Earth Neg. Bulletin,

<http://www.iisd.ca/vol12/enb12498e.html>

Discussions Questions/Issues: What are the current terms of the UNFCCC and Kyoto Protocol? How and why were these treaties developed? What are their strengths and weaknesses? Does Kyoto expire? Why do many argue the world needs a new climate treaty? What happened in Copenhagen? What happens next? What is the current negotiation timeline? What are the major issues? What possible types of climate agreements might succeed the current Kyoto requirements? What are the various negotiation blocs? What happened at Copenhagen (2009) and Cancun (2010) negotiations? Which countries are crucial to the outcome of future negotiations? What are their positions? What do you think global policy should be?

8: Basic National Policies and Perspectives: China, EU, India, Japan, Russia and the USA.

Readings

** Downie, Brash and Vaughan, **Ch. 3.

** Terry Townshend, et al., "Legislating Climate Change on a National Level."

Environment, Vol. 53, No. 5 (September/October 2011) pp, 5-16

* Elisabeth Rosenthal, "Where did Global Warming Go?" News Analysis (opinion) New York Times, October 15, 2011 <http://www.nytimes.com/2011/10/16/sunday-review/whatever-happened-to-global-warming.html?pagewanted=all>

** Executive Summary of "Testimony before the Subcommittee on Energy and Power: The Transformation of China's Energy System" (4 April 2011)

<http://www.wri.org/publication/testimony-transformation-of-chinas-energy-system>

You only need to read summary. You can summarize this for the log but if you do you must summarize the entire testimony, available via the link on this page.

** Antto Vihma, "Elephant in the Room: The New G77 and China Dynamics in Climate

Talks." Briefing Paper 6, Finnish Institute of International Affairs, 26 May 2010. You only need to read summary on page 2. You can summarize this for the log but if you do you must summarize the entire short article, not just page 2

** R. Kempener, et al. "Energy Innovation Policy in Major Emerging Countries" Policy Brief, Energy Tech Innovation Project, Belfer Center for Science and International Affairs, Harvard Univ. http://belfercenter.ksg.harvard.edu/publication/20615/energy_innovation_policy_in_major_emerging_countries.html

* European Union May Achieve a 30 Percent Reduction in Carbon Emissions. <http://www.reuters.com/article/2012/01/18/us-eu-climate-target-idUSTRE80H19220120118>

* China Facing Climate Change Risks. http://www.washingtonpost.com/world/asia_pacific/beijing-makes-rare-concession-on-pollution-measure/2012/01/19/gIQApsl6BQ_story.html
EU CO2 Trading Website: http://ec.europa.eu/environment/climat/emission/index_en.htm

Tamura & Zusman, "The Politics of Climate Policy in China: Interests, Institutions and Ideas." enviroscope.iges.or.jp/modules/envirolib/upload/3429/attach/climate_policy_in_china.pdf

Song and Woo, eds. *China's Dilemma : Economic Growth, the Environment and Climate Chang*. 2008.

Anna Korppoo, "The Russian Debate on Climate Doctrine: Emerging Issues on the Road to Copenhagen." Finnish Institute of International Affairs (FIIA), Helsinki, June 2009.

Andrew Jordan et al (eds.). 2010. *Climate Change Policy in the European Union*. Cambridge U Press.

Sebastian Oberthür and Marc Pallemmaerts, eds., *The New Climate Policies of the European Union: Internal Legislation and Climate Diplomacy*, 2010.

Kathryn Harrison & Lisa McIntosh Sundstrom, eds. *Global Commons, Domestic Decisions: The Comparative Politics of Climate Change*. MIT Press, 2010.

Carlane Cinnamon. *Climate Change Law and Policy: EU and US Approaches*. Oxford Univ. Press, 2010.

Andrew et al, eds. *Climate Change Policy in the European Union : Confronting the Dilemmas of Mitigation and Adaptation?* 2010, QC903.2 .E85 C55 2010.

John Schmidt. 2008. "Why Europe Leads on Climate Change." *Survival* 50.4: 83-96.

Paul G. Harris (ed.). 2007. *Europe and Global Climate Change*. Edward Elgar.

Miranda Schreurs and Yves Tiberghien. "Multi-level Reinforcement: Explaining EU Leadership in Climate Change Mitigation." *Global Environmental Politics*, November 2007, pp. 19-46.

Discussions Questions/Issues: What is current climate policy in China, India, Russia, the EU, SIDs and OPEC countries? What is the energy policy? Do these policies make sense? What does the future hold? Should the world pursue a new comprehensive treaty? What are the central bits of information, or central arguments, in each of the last 5 required readings.

9 & 10: International Climate Policy and Politics in Detail: UNFCCC; Kyoto; 2009 Copenhagen, 2010 Cancun, 2011 Durban negotiations; Current and Future Options.

Readings:

- ** Intro summary and “A Brief Analysis of the UNFCCC and the Kyoto Protocol” Pp. 1-3, In Earth Negotiations Bulletin, “*Summary of The Durban Climate Change Conference: 28 November - 11 December 2011*” to be but also available www.iisd.ca/process/climate_atm-fcccintro.html and www.iisd.ca/process/climate_atm-fcccintro.html (previously assigned).
- ** Chasek and Downie, **ch. 4, climate sections - previously assigned.
- ** Daniel Bodansky, ““Whither the Kyoto Protocol? Durban and Beyond.” Policy Brief: Harvard Project on Climate Agreements. August 2011. http://belfercenter.ksg.harvard.edu/files/Bodansky_Viewpoint-Final.pdf.
- ** Radoslav S. Dimitrov, “Inside Copenhagen: The State of Climate Governance.” Global Environmental Politics. Vol. 10, No. 2, ppl 18-24 (May 2010).
- ** Durban Negotiation Summary: “A Brief Analysis of COP 17 AND CMP 7,” Pp. 29-31 In Earth Negotiations Bulletin, “*Summary Of The Durban Climate Change Conference: 28 November - 11 December 2011*” www.iisd.ca/process/climate_atm-fcccintro.html and www.iisd.ca/process/climate_atm-fcccintro.html
- ** Sheila M. Olmstead and Robert Stavins. “Three Key Elements of a Post-2012 International Climate Policy Architecture. Post-Kyoto International Climate Policy Architecture.” Review of Environmental Economics and Policy. Vol. 6. Issue 1. Winter 2012. Pp. 65-85. Available via journal website: <http://reep.oxfordjournals.org/content/current>
Abstract: This article describes three essential elements of an effective post-2012 international climate policy architecture: a framework to ensure that key industrialized and developing nations are involved in differentiated but meaningful ways, an emphasis on an extended time path for emissions targets, and the inclusion of flexible market-based policy instruments to keep costs down and facilitate international equity. This overall architecture is consistent with fundamental aspects of the science, economics, and politics of global climate change; addresses specific shortcomings of the Kyoto Protocol; and builds on the foundation of the United Nations Framework Convention on Climate Change.
- * UNEP News Release, “Bridging the Emissions Gap to Meet 2-Degree Target Do-able: New UNEP Report Outlines Pathways to 2020 Able to Deliver Additional 6 to 11 Gigatonne Cuts Needed to Get World onto Safe Track.”
- ** Press Release, WRI and UNEP. ‘New Research Reveals Pathways for Action on Climate Change.’
You only need to read the press release. You can summarize this for the log but if you do you must summarize the full report (article length). Full Report: <http://www.wri.org/publication/building-the-climate-change-regime>

- * Eliminating Fossil Fuel Subsidies Could Provide Half of 2035 Reduction Targets.
<http://www.guardian.co.uk/environment/2012/jan/19/fossil-fuel-subsidies-carbon-target>
- ** Giddens, Chapters **4, **5, **6, **7, **8, **9.
- WRI and UNEP: *Building the Climate Change Regime: Survey and Analysis of Approaches*, October 2011. <http://www.wri.org/publication/building-the-climate-change-regime>
- Judith Layzer, "Climate Change - The Challenges of International Environmental Policymaking." Ch. 10 in *The Environmental Case*, 3rd Edition (Washington: CQ Press, 2012). Previously assigned.
- UNFCCC Secretariat, "The Kyoto Protocol"
http://unfccc.int/kyoto_protocol/items/2830.php
- Copenhagen Accord,
<http://www.un.org/wcm/content/site/climatechange/lang/en/pid/5800>
- Copenhagen Accord,
http://unfccc.int/files/meetings/cop_15/application/pdf/cop15_cph_auv.pdf
- Summary of The Copenhagen Climate Change Conference*, Earth Negotiation Bulletin,
<http://www.iisd.ca/vol12/enb12459e.html>
 (photos <http://www.iisd.ca/climate/cop15/>)
- Radoslav S. Dimitrov, "Inside UN Climate Change Negotiations: The Copenhagen Conference," *Review of Policy Research*, Volume 27, Number 6 (2010), pp. 795-221.
- Robert Stavins, "What Hath Copenhagen Wrought. A Preliminary Assessment of the Copenhagen Agreements" Harvard Working Paper, Dec 2009.
<http://belfercenter.ksg.harvard.edu/analysis/stavins/?p=464>
- Robert Stavins, "What Happened (and Why): An Assessment of the Cancun Agreements" Harvard University Working Paper
<http://belfercenter.ksg.harvard.edu/analysis/stavins/?p=876>
- J. Roljer, et al. Analysis of the Copenhagen Accord." *Environmental Research Letters*, 5(2010), 9pp.
 Abstract: "This analysis of the Copenhagen Accord evaluates emission reduction pledges by individual countries against the Accord's climate-related objectives. Probabilistic estimates of the climatic consequences for a set of resulting multi-gas scenarios over the 21st century are calculated with a reduced complexity climate model, yielding global temperature increase and atmospheric CO₂ and CO₂-equivalent concentrations. Provisions for banked surplus emission allowances and credits from land use, land-use change and forestry are assessed and are shown to have the potential to lead to significant deterioration of the ambition levels implied by the pledges in 2020. This analysis demonstrates that the Copenhagen Accord and the pledges made under it represent a set of dissonant ambitions. The ambition level of the current pledges for 2020 and the lack of commonly agreed goals for 2050 place in peril the Accord's own ambition: to limit global warming to below 2 °C, and even more so for 1.5 °C, which is referenced in the Accord in association with potentially strengthening the long-term temperature goal in 2015. Due to the limited level of ambition by 2020, the ability to limit emissions afterwards to pathways

Daniel Bodansky, "The International Climate Change Regime: The Road from Copenhagen" Policy Brief, Harvard Project on International Climate Agreements, Belfer Center for Science and International Affairs, Harvard Kennedy School. October 2010. http://belfercenter.ksg.harvard.edu/publication/20437/international_climate_change_regime.html

Summary of The Cancun Climate Change Conference, Earth Negotiation Bulletin, <http://www.iisd.ca/vol12/enb12498e.html>

Summary of the Cancún Agreements by the Pew Center on Global Climate Change: <http://www.pewclimate.org/docUploads/cancun-climate-conference-cop16-summary.pdf>

Climate Group Post-Cancún Analysis: http://www.theclimategroup.org/_assets/files/Post-Cancun-Analysis_1.pdf

Large Collection of Articles on 2010 Cancun Climate Negotiations: <http://triplecrisis.com/climate-change-negotiations-a-collection-of-post-cancun-analyses/>

Press Release: "IPCC Strengthens Processes and Procedures at 32nd Plenary Session" Rafael Leal-Arcas, "Kyoto and the COPs - Lessons Learned and Looking Ahead." *Hague Yearbook of International Law*, Vol. 23, pp. 17-90, 2011.

11, 12, & 13: US National Climate Policy, Politics and Options

LOG DUE Session 12.

Readings:

- * Readings TBA.
- * Downie, Brash and Vaughan, pp. 24-30, 69-78.
- ** Giddens, pp. 21-32, 55-59, **4, **5, **6, and ** 9 (all previously assigned).
- ** Dunlea, et al., "America's Climate Choices." *Environment*, Vol. 53, No. 2 (March/April 2011) pp, 20-32.
- ** WRI Factsheet, "US Climate Action in 2009-2010." September 2010.
- ** WRI, Reducing Greenhouse Gas Emissions in the United States Using Existing Federal Authorities and State Action, July 2010, Summary of Key Finding Section, pp. 2-7 in the "Executive Summary," http://pdf.wri.org/reducing_ghgs_using_existing_federal_authorities_and_state_action_summary.pdf - print and bring this subsection. The entire report can be found via: <http://www.wri.org/publication/reducing-ghg-emissions-using-existing-federal-authorities-and-state-action>
- ** "U.S. CO2 emissions to stay below 2005 levels as coal use shrinks." <http://www.reuters.com/article/2012/01/24/us-carbon-idUSTRE80N0G220120124>
- ** Judith Layzer, "Climate Change - The Challenges of International Environmental Policymaking." Ch. 10 in her book, *The Environmental Case*, 3rd Ed (Washington: CQ Press, 2012).

- * Elisabeth Rosenthal, "Where did Global Warming Go?" News Analysis (opinion), *New York Times*,
 * October 15, 2011 <http://www.nytimes.com/2011/10/16/sunday-review/whatever-happened-to-global-warming.html?pagewanted=all> (previously assigned)
- ** Robert Socolow, R. Hotinski, J. Greenblatt, and S. Pacala, "Solving the Climate Problem: Technologies Available to Curb CO2 Emissions," *Environment*, Vol. 46, No. 10 (December 2004), pp. 8-19: http://cmi.princeton.edu/wedges/pdfs/climate_problem.pdf.
- * Robert Semple, Jr. "Oil and Gas Had Help. Why Not Renewables?" Opinion, *New York Times*, October 15, 2011, <http://www.nytimes.com/2011/10/16/opinion/sunday/oil-and-gas-had-help-why-not-renewables.html>
- * WRI, "Factsheet: Policy design for maximizing US wind energy jobs" (2 pages).
- ** Pew Center, "In Brief: Update on the 10-50 Solution: Progress Toward a Low-Carbon Future" <http://www.c2es.org/docUploads/10-50-brief-update.pdf>
- * "Increased Number of Americans Think..."
<http://www.gallup.com/poll/116590/increased-number-think-global-warming-exaggerated.aspx>
- * *The Onion*, "Report: Global Warming Issue From 2 Or 3 Years Ago May Still Be Problem." http://www.theonion.com/articles/report-global-warming-issue-from-2-or-3-years-ago,18431/?utm_source=recentnews
- * BELC Company Emission Reduction Targets:
http://www.pewclimate.org/companies_leading_the_way_belc/targets/
- * GROCC Joint Statement: www.earth.columbia.edu/grocc/grocc4_statement.html
- * US CAP website: Members, Policy Statement, and Call for Action sections, www.us-cap.org.

US EPA, *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2009*. Executive-Summary. April 2011

U.S. Energy Information Adm., *Annual Energy Outlook 2012*,
<http://www.eia.gov/forecasts/aeo/er/>

Andrew Hoffman, *Getting Ahead of the Curve: Corporate Strategies That Address Climate Change*. http://www.pewclimate.org/global-warming-in-depth/all_reports/corporate_strategies

US House of Representatives, Committee on Oversight and Government Reform, "Committee Report: White House Engaged in Systematic Effort to Manipulate Climate Change Science," December 2007: <http://oversight.house.gov/story.asp?ID=1653>

US Global Change Research Program, *Global Climate Change Impacts in the United States*, <http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/download-the-report>

National Council for Science and the Environment. *The Climate Solutions Consensus: What We Know and What to Do about It*. 2010, QC903 .B56 2010.

Barry G. Rabe, Editor. *Greenhouse Governance: Addressing Climate Change in America*. 2010.

- Paul Wapner. *Living Through the End of Nature : The Future of American Environmentalism*. 2010.
- McCright, Aaron M., and Riley E. Dunlap. 2011. "The Politicization of Climate Change and Polarization in the American Public's Views of Global Warming, 2001-2010." *The Sociological Quarterly* 52:155-194.
- McCright, Aaron M., and Riley E. Dunlap. 2011. "Cool Dudes: The Denial of Climate Change among Conservative White Males in the United States." *Global Environmental Change* 21:1163-1172.
- Antonio, Robert J., and Robert J. Brulle. 2011. "The Unbearable Lightness of Politics: Climate Change Denial and Political Polarization." *The Sociological Quarterly* 52:195-202.
- Nagel, Joane. 2011. "Climate Change, Public Opinion, and the Military Security Complex." *The Sociological Quarterly* 52:203-210.
- Jenkins, J. Craig. 2011. "Democratic Politics and the Long March on Global Warming: Comments on McCright and Dunlap." *The Sociological Quarterly* 52:211-219.
- Aaron M. McCright and Riley E. Dunlap, "Anti-reflexivity: The American Conservative Movement's Success in Undermining Climate Science and Policy" *Theory, Culture & Society* March/May 2010 27: 100-133.

Discussions Questions/Issues: What is current climate policy in the USA? What is the energy policy? What is its history? Do these policies make sense? Why or why not? What is the focus of the climate bills in Congress? Do they make sense? What should the USA do on climate and energy? Why? What are the central bits of information, or central arguments, in each required reading.

14: US Policy: States, Cities, Universities, Individuals

Readings:

- * CT State action: "An Act Concerning CT Global Warming Solutions."
<http://www.cga.ct.gov/2008/ACT/PA/2008PA-00098-R00HB-05600-PA.htm>
- * Pew Center – US Climate Policy Maps: http://www.pewclimate.org/whats_being_done/in_the_states/state_action_maps.cfm
- * Regional Greenhouse Gas Initiative Cuts 67 Million Carbon Allowances. New York Times story: http://www.nytimes.com/2012/01/27/nyregion/in-greenhouse-gas-initiative-many-unsold-allowances.html?_r=2&ref=nyregion
- * *American College & University Presidents Climate Commitment* and materials on its homepage: www.presidentsclimatecommitment.org/html/solutions_academics.php
- * T. Dietz, et al. "The Behavioral Wedge." Just the summary.
<http://behavioralwedge.msu.edu/>
- * Carbon Footprint Reduction, <http://www.carbonfootprint.com/minimisecfp.html>.
Carbon Footprint Calculator: <http://www.carbonfootprint.com/calculator.aspx>
- * Readings TBA

RGGI Website (especially About RGGI Section): <http://www.rggi.org/>. The Regional Greenhouse Gas Initiative, or RGGI, is a cooperative effort by Northeastern and Mid-Atlantic states to reduce carbon dioxide emissions. Central to this initiative is the implementation of a multi-state cap-and-trade program with a market-based emissions trading system that requires electric power generators to reduce carbon dioxide emissions.

US Mayors Climate Protection Center website:

<http://www.usmayors.org/climateprotection/>

Degrees that Matter: Climate Change and the University

L. David, *Stop Global Warming: The Solution Is You!* Golden, CO: Fulcrum, 2006.

D. De Rothschild, *The Live Earth Global Warming Survival Handbook: Essential Skills To Stop Climate Change*. New York: Rodale Books, 2007.

C. Goodall, *How to Live a Low-Carbon Life*. London: Earthscan, 2007.

J. Isham, and S. Waage. *Ignition: What You Can Do to Fight Global Warming and Spark a Movement*. Washington, D.C.: Island Press, 2007.

G. Keller, D. Jenks, and J. Papasan. *Green Your Home*, New York: McGraw Hill, 2008.

J. Langholz and K. Turner, *You Can Prevent Global Warming (and save money)*, 2003

Dave Real, *Climate Change Begins at Home*, Macmillan, 2006.

E. Rogers, and T.M. Kostigen. *The Green Book: The Everyday Guide to Saving the Planet One Simple Step at a Time*. New York, Three Rivers Press, 2007.

Discussions Questions/Issues: What are some of the key regional and state climate policies? Do they make sense? Why or why not? What are the goals of the CT climate policy plan? How will these goals be achieved? Should states and cities have climate policies? Can they make a difference? What are some of the key campus initiatives related to climate change? Should universities have climate policies? Can they make a difference? What can individuals do to reduce their GHG emissions? What suggestions do you find compelling? Silly? What statistics back up the calls for individual action? What policies can be enacted to make such action easier or more likely? Can individual action make a difference?

15: Climate Ethics and Policy. Papers Due.

Readings:

** Chasek and Downie, readings on Precautionary Principle and Common But Differentiated Responsibility, in Ch. 1.

** Brown et al, "White Paper on the Ethical Dimensions of Climate Change," pp. TBA
<http://rockethics.psu.edu/climate/whitepaper/edcc-whitepaper.pdf>

* Pope statements on climate change, e.g:

- http://weblogs.baltimoresun.com/news/faith/2009/12/benedict_climate_change.html
- http://www.vatican.va/holy_father/benedict_xvi/messages/peace/documents/hf_ben-xvi_mes_20091208_xliii-world-day-peace_en.html
- <http://www.radiovaticana.org/en1/articolo.asp?c=541410>

- <http://faithandenvironment.wordpress.com/2012/01/11/pope-benedict-xvi-on-education-and-climate-change/>
- * “A Spiritual Declaration on Climate Change,” Interfaith Climate Change Network, 4 Dec. 2005, viewed 30 May 2006. <http://www.interfaithdeclaration.org/>
- * Catholic Climate Covenant Website: <http://catholicclimatecovenant.org/catholic-teachings/vatican-messages/>
- * short video: <http://www.youtube.com/watch?v=zORv8wwiadQ&feature=fvw>

“Climate Wrongs and Human Rights,” Oxfam International:

http://www.oxfam.org.uk/resources/policy/climate_change/bp117_climatewrongs.html

William Antholis and Strobe Talbott. *Fast Forward : Ethics and Politics in the Age of Global Warming*. 2010. QC981.8 .G56 A57 2010

Paul Wapner. *Living Through the End of Nature : The Future of American Environmentalism*. 2010, GE197 .W37 2010

S. Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change*, Oxford, 2008.

Paul Harris, *World Ethics and Climate Change: From International to Global Justice*. Edinburgh University Press: Nov 2009

J. Timmons Roberts and Bradley C. Parks, *A Climate of Injustice: Global inequality, North South politics, and Climate Policy*. MIT Press, 2006.

Mearns et al. eds. *The Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World*. 2010, HM861 .S62 2010

Matthias Ruth and Maria Eugenia Ibararán, Eds. *Distributional Impacts of Climate Change and Disasters : Concepts and Cases*. 2009, QC981.8 .C5 D57 2009

Statement of the Evangelical Climate Initiative,”

www.christiansandclimate.org/statement.

For press report see: <<http://www.washingtonpost.com/wp-dyn/content/article/2006/04/21/AR2006042101573.html>>.

National Conference of Catholic Bishops, “Global Climate Change: A Plea for Dialogue, Prudence, and the Common Good,” 15 June 2001.

United Church of Christ Statement on Global Climate Change.

Roberts & Parks, “Environmental and Ecological Justice,” in Bestsill, Hochesteltler & Stevis, eds, *International Environmental Politics*.

Women’s Environment and Development Organization (WEDO), “Changing the Climate: Why Women’s Perspectives Matter,” 2007. www.wedo.org/library.aspx?ResourceID=180

Simple Living for the Environment Is for Suckers,

<http://www.utne.com/Environment/Simple-Living-for-the-Environment-Is-for-Suckers.aspx>

Websites: <http://rockethics.psu.edu/climate/> ; <http://climateethics.org>

Discussions Questions/Issues: Are ethical issues relevant to climate change? Is religion relevant to climate change? Do GHG emission patterns – past, present and future – raise ethical issues? Are they different when one considers different time frames? Can policy reflect ethical concerns for decisions made years ago without the knowledge we

have today? Do the expected patterns of climate impacts raise ethical issues? Do these relate to expected impacts on the poorest and most vulnerable around the world? Species extinctions? Patterns of responsibility? Are there intergenerational ethical issues? Are there gender issues? Do ethical issues exist for individuals in relation to climate change? For corporations? Why have some religious leaders or groups issued statements on climate change? Are such statements or actions appropriate? What impact do they have? How would you explain, in 1 minute, what we know about the causes and consequences climate change? What do you believe this knowledge justifies as priorities for climate policy at the global, national, and local level? How would you explain, in 2 minutes, what actions that an individual concerned about climate change should take, and why? What discussion questions should be added to this syllabus?

FINAL EXAM