

Climate Change Policy, Planning and Action
Spring 2015
UEP 221

Tentative schedule of meetings, readings and assignments

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office hours: Monday 2-4, and by appointment

UEP, 97 Talbot Ave.

Class meets: 1:30-4:00 **97 Talbot Ave classroom**

This course examines climate change through an innovation lens. Is there a relationship between innovation and justice? Can innovation protect us from disruptions and losses associated with a changing climate? How can communities innovate as they develop and implement adaptation and mitigation plans? What kinds of innovations are needed? What innovations are emerging now? How and by whom will innovative approaches to adaptation and mitigation be developed and transferred? What policies will support climate-related innovation? What innovations have occurred?

In looking for answers to these questions, we explore scientific evidence, impacts, policy responses, and actions being planned and taken. Sources of greenhouse gas emissions will be examined, and a range of mitigation and adaptation measures explored. Solutions proposed by governments, communities, and institutions (both for profit and non-profit) and for major systems, e.g. transportation, buildings, energy will be studied. Students will become familiar with greenhouse gas emission inventories and will gain an understanding of choices that affect greenhouse gas emission levels.

Our study of climate change includes several elements of international policy, not only with respect to negotiations among nations, but also on select issues such as the gender, equity and development implications of climate change and of mitigation and adaptation measures. We also examine differential effects of climate change impacts and solutions and explore the implications of these changes on power dynamics.

Learning objectives

In addition to developing a basic understanding of the policy and planning challenges associated with climate change, students will

- Explore the role of innovation in climate change policy, planning, and action
- Consider the justice implications of government policies
- Examine select adaptation and mitigation measures being proposed and taken
- Acquire experience with greenhouse gas mitigation or climate adaptation through a project.

Course requirements

Regular class attendance, preparation of assigned readings, and active participation in class discussion are expected. A term project will be undertaken and in addition, several brief written assignments are required during the semester including a project description,

project outline, project draft, and a literature review. For the final product, students will prepare a project report (that will incorporate some of the material from earlier assignments).

Course texts

Stephen H. Schneider, Armin Rosencranz, Michael D. Mastrandrea, and Kristin Kuntz-Duriseti (editors). Climate Change Science and Policy. Washington, D.C.: Island Press. 2010.

James Garvey. The Ethics of Climate Change: right and wrong in a warming world. London: Continuum. 2009.

Additional reading materials will be made available on Trunk. Some are required and others are recommended.

Class 1 20 January	Course overview ; introduction to resources and expectations; introduction to system basics. What is the problem? How are the issues framed?
Class 2 27 January	Knowledge dimension: Climate science and impacts I Schneider et al., pp 1-81. IPCC. 2014. Climate Change 2014: Synthesis Report for Policymakers. Fifth Assessment Report of the IPCC. http://ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf Recommended: Ashanti Johnson and Natasha D. White. 2014. "Ocean Acidification: The Other Climate Change Issue." <i>American Scientist</i> . Vol. 102. no. 1. p. 60-63. Elizabeth Kolbert, "Butterfly Lessons" <i>New Yorker</i> , January 9, 2006 p. 32.
Class 3 3 February	Knowledge dimension: Climate impacts II Schneider et al., pp 82-140. Friel et al., "Addressing the Social and Environmental Determinants of Urban Health Equity: Evidence for Action and a Research Agenda." <i>Journal of Urban Health</i> , vol. 88, no. 5: 860-874, 2011. Recommended: Elizabeth Kolbert, "The Truth-teller: NASA's climate expert delivers the news no one wants to hear." <i>New Yorker</i> , June 29, 2009 p. 39. Oxfam. 2012. Extreme Weather, Extreme Prices: The Costs of Feeding a Warming World. Oxfam Issue Briefing.
Class 4 10 February	Strategic dimension : Mitigation and adaptation Schneider et al., pp 433-501. Bedsworth and Hanak. 2010. "Adaptation to Climate Change: A Review of Challenges

	<p>and Tradeoffs in Six Areas.” <i>Journal of the American Planning Association</i>. Vol. 76. No. 4.</p> <p>Farber. 2011. “The Challenge of Climate Change Adaptation: Learning from National Planning Efforts in Britain, China and the USA.” adaptation planning USA, UK and China. <i>Journal of Environmental Law</i>. Vol 23. No. 3:359-382.</p> <p>Biesbroek et al. 2013. On the nature of barriers to climate adaptation. 2013. <i>Reg Environ Change</i>. 13:119-1129.</p> <p>Massachusetts. 2014. Global Warming Solutions Act: Five Year Progress Report.</p> <p>Massachusetts. 2011. Climate Change Adaptation Report.</p> <p>Recommended: Moser et al. “Adaptation to climate change in the Northeast United States: opportunities, processes, constraints” <i>Mitigation and Adaptation Strategies for Global Change</i>, September, 2007.</p> <p>Luftig et al. “Incentives to Urban Adaptation to Climate Change: A Case Study of Cambridge, MA. (no date).</p>
<p>Class 5 17 February</p>	<p>Critical dimension : Uneven effects: Development, Equity and Gender Schneider et al., pp 241-295.</p> <p>James Garvey. <u>The Ethics of Climate Change: right and wrong in a warming world</u>. London: Continuum. 2009.</p> <p>Harris and Symons. 2010. Justice in Adaptation to Climate Change: Cosmopolitan Implications for International Institutions. <i>Environmental Politics</i>. Vol 19. No. 4: 617-636.</p> <p>Masika (ed.) <u>Gender, Development and Climate Change</u>. Oxfam. 2002.</p> <p>Ashley Dawson. 2013. “Edward Said’s Imaginative Geographies and the Struggle for Climate Justice.” <i>College Literature</i>. Vol. 40. no. 4. p 33-51.</p> <p>Recommended: Klinsky and Dowlatabadi. 2009. “Conceptualizations of justice in climate policy.” <i>Climate Policy</i> 9: 88-108.</p> <p>Karine Peloffy. Kivalina v. ExxonMobil: A comparative case comment.</p>
<p>Class 6 24 February</p>	<p>Framing revisited: Economic perspectives, risks and uncertainty</p> <p><u>Written assignment: Brief description of proposed project (2-3 pages)</u></p> <p>Schneider et al., pp 141-193.</p>

	<p>Stern Review on The Economics of Climate Change, 30 October 2006. Executive summary.</p> <p>Lomborg comments on the Stern Review and Nordhaus comments on the Stern Review.</p> <p>Recommended: Packard and Reinhardt. “What Every Executive Needs to Know about Global Warming.” <i>Harvard Business Review</i>. July-August 2000.</p>
<p>Class 7 3 March</p>	<p>Normative dimension: visions of how the world should look Schneider pp. 423-432.</p> <p>Ayers and Huq. 2009. The Value of Linking Adaptation and Mitigation : A Case Study of Bangladesh. <i>Environmental Management</i>. 43 : 735-764.</p> <p>Kelly Sims Gallagher, Arnulf Grubler, Laura Kuhl, Charlie Wilson. . 2012. The Energy Technology Innovation System. <i>Annu. Rev. Env. Res.</i> (37):137-162.</p> <p>“The Race to Build the Car of the Future.” Marketplace. 15 January 2015. http://www.marketplace.org/topics/business/big-book/race-build-car-future</p> <p>Elizabeth Kolbert, The Island in the Wind : A Danish community’s victory over carbon emissions. <i>New Yorker</i>, July 7, 2008, p. 68.</p> <p>Diane Cardwell. 2015. “Fueled by Danish Ingenuity: Residents of struggling Maine islands find green energy inspiration just off the coast of Denmark.” <i>New York Times</i>. 18 January. http://www.nytimes.com/2015/01/18/business/energy-environment/green-energy-inspiration-from-samso-denmark.html?_r=1</p> <p>Bambrick et al. 2011. Climate Change and Health in the Urban Environment : Adaptation Opportunities in Australian Cities. <i>Asia-Pacific Journal of Public Health</i>. 23(2) : 67S-79S.</p> <p>Recommended: Rappaport et al. 2008. Renewable Energy Modules.</p> <p>Cogan, “Corporate Governance and Climate Change: Making the Connection,” CERES, 2003</p>
<p>Class 8 10 March</p>	<p>Critical dimension: framing, public understanding and action Schneider et al., pp 397-422.</p> <p>Schapiro, “Conning the Climate,” <i>Harper’s</i>, February 2010.</p> <p>Edna Sussman. 2009. Climate change framing and social marketing: The influences that persuade. <i>Pace Environmental Law Review</i>. Vol. 27 pp. 313-324.</p>

	<p>Brody et al. 2012. “Examining the Willingness of Americans to Alter Behaviour to Mitigate Climate Change.” <i>Climate Policy</i>. 12:1-22.</p> <p>Recommended: Center for Research on Environmental Decisions, “The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public.”</p> <p>McKenzie-Mohr. 2000. “Promoting Sustainable Behavior: An Introduction to Community-Based Social Marketing.” <i>Journal of Social Issues</i>. 56 (3): 543-554.</p> <p>Sterman and Sweeney, “Cloudy Skies: Assessing Public Understanding of Global Warming.”</p> <p>Shellenberger and Nordhaus, “The Death of Environmentalism,” 2004.</p>
NO CLASS 17 March	Spring Break
Class 9 24 March	<p>Strategic dimension Planning for climate action. Inventory development.</p> <p><u>Written assignment: personal inventory and action plan due</u></p> <p>WBCSD and WRI, “The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.”</p> <p>Tufts Climate Initiative, “Method for Conducting a Greenhouse Gas Emissions Inventory for Colleges and Universities,” 2002.</p> <p>Rappaport and Creighton, chapters 6 and 7, “Tacking Emissions at the Source: Buildings and Building Systems,” <i>Degrees that Matter</i>. MIT Press (2007).</p>
Class 10 31 March	<p>Strategic dimension: Policy frameworks Schneider et al., pp 194-240.</p> <p>Brewer, 2008. “Climate change technology transfer: a new paradigm and policy agenda.” <i>Climate Policy</i> 8: 516-526.</p> <p>William Moomaw and Mihaela Papa. 2012. Creating a Mutual Gains Climate Regime Through Clean Energy Services. CIERP. Sustainable Development and Diplomacy Governance Program. Tufts University. Number 006.</p> <p>Zadek. 2011. “Beyond Climate Finance: From Accountability to Productivity in Addressing the Climate Challenge.” <i>Climate Policy</i>. 11:1058-1068.</p>
Class 11 7 April	<p>Strategic dimension—National policies I--US Schneider et al., pp 343-396.</p>

	<p><u>Written assignment: preliminary literature review for project and brief status report due (4-5 pages)</u></p> <p>Rabe, “Greenhouse & Statehouse: The Evolving State Government Role in Climate Change,” Pew Center on Global Climate Change, 2002.</p> <p>Deakin. 2011. “Climate Change and Sustainable Transportation: The Case of California.” <i>Journal of Transportation Engineering</i>. Vol. 137. No. 6: 372-382.</p> <p>Recommended: Selin and VanDeveer, “Canadian-US Cooperation: Regional Climate Change Action in the Northeast,” in Philippe Le Prestre and Peter Stoett (eds.) <u>Continental Ecopolitics</u>. Aldershot: Ashgate (2005).</p> <p>Corfee-Morlot et al. Cities, “Climate Change and Multilevel Governance.” OECD Environmental Working Papers No. 14. 2009.</p> <p>New England Governors/Eastern Canadian Premiers, “Climate Change Action Plan,” 2001. Congressional Budget Office, “The Economic Costs of Fuel Economy Standards Versus a Gasoline Tax” 2003.</p> <p>Craig. 2010. “‘Stationarity is Dead’—Long Live Transformation: Five Principles for Climate Change Adaptation Law. <i>Harvard Environmental Law Review</i>. Vol. 34: 9-73.</p>
<p>Class 12 14 April</p>	<p>Strategic Dimension—mitigation and adaptation: National policy II—China, India, Australia and beyond Schneider et al., pp 296-339.</p> <p>Recommended : Australia extreme weather report</p>
<p>Class 13 21 April</p>	<p>Assessment dimension—The track record thus far Bassett and Shandas. 2010. “Innovation and climate action planning.” <i>Journal of the American Planning Association</i>. Vol. 76. No. 4: 435-450.</p> <p>Zeller 2010. “For those living nearby, that miserable hum of clean energy.” <i>New York Times</i>. October 6, page 1.</p> <p>Letters to the editor in response to the Zeller article. <i>New York Times</i>.</p> <p>See also in the Massachusetts folder the 5 year progress report.</p> <p>Rappaport et al. 2008. Cases: Communities and Wind Power in Massachusetts</p>

Final project reports are due: Monday May 4 at noon.