

ECONOMICS OF GREEN POWER, EC444/544.001 (CR 49361)

Winter 2012, MWF 10:15 – 11:20 AM, NH 341, Professor Hahnel
Office Hours: MWF 9 – 10 AM and 1 PM to 2 PM, CH 287L

Disclaimer

This course departs from the assumption that the overwhelming majority of professionals who have scientific expertise relevant to the subject of climate change are correct when they warn us that the emission of greenhouse gases due to human economic activities is increasing the greenhouse effect and causing climate change.

Specifically, this course assumes that only by limiting the rise in average global temperatures to 2 degrees Celsius, only by stabilizing atmospheric concentrations of GHGs at 350 ppm, only by reducing global emissions by 80% or more over the next few decades, and only by reducing *net* carbon emissions to zero at some point before century's end can we avoid an unacceptable risk of cataclysmic climate change.

This will not only require converting global energy production from fossil fuels to renewables, but will also require what we might call a “complete makeover” of our industry, agriculture, and transportation sectors and our entire built infrastructure in a very short time frame. This course will explore what policies are required to meet this monumental challenge, and what political strategies can make this possible.

After studying necessary preliminaries, we will study international negotiations and treaties to address climate change: Why international cooperation is necessary. The history of international negotiations. Obstacles to international cooperation, and ways to overcome those obstacles. And proposals for a new climate treaty.

After which we will study domestic policies needed to reduce emissions, promote sequestration and storage, and stimulate energy conservation and conversion to renewables. In the context of the current economic crisis we will also study the “political economy” of what has been called a “Green New Deal.”

Course Requirements

There will be an in-class midterm exam on Monday, February 6 (worth 100 points) and a take home midterm exam (worth 50 points) due on Friday, February 10, covering basic concepts, theories, and global climate change policies.

On Monday, January 30, you will turn in a “notebook” where you have written up your answers to six “exercises” which precede the midterm exam. Parts of these exercises we will have gone over in class. Other parts I will leave for you to finish. (worth 25 points)

Instead of a final exam, students will turn in a paper (worth 75 points) on a problem of their choosing having to do with launching and carrying out a “Green New Deal.” This paper should draw on, but not be limited to, readings from the last five weeks of class. The paper for students in 444 should be approximately 5 pages. The paper for students in 544 should be more substantial and approximately 10 pages long.

Texts

Ayres, Robert and Edward Ayres. 2009. *Crossing the Energy Divide: Moving from Fossil Fuel Dependence to a Clean-Energy Future*. Upper Saddle River NJ: Wharton School Publishing.

Baer, Paul, Tom Athanasiou, and Sivan Kartha. 2007. *The Right to Development in a Climate Constrained World: The Greenhouse Development Rights Framework*. Berlin: Heinrich Boll Foundation, Christian Aid, EcoEquity, and the Stockholm Environmental Institute. (An updated, second edition is available as a PDF file at www.ecoequity.org).

Brand, Stewart. 2009. *Whole Earth Discipline*. New York NY: Penguin Books.

Hahnel, Robin. 2011. *Green Economics: Confronting the Ecological Crisis*. Armonk NY: M.E. Sharpe.

Jones, Van. 2008. *The Green Collar Economy: How One Solution Can Fix Our Two Biggest Problems*. New York: HarperCollins.

CLASS SCHEDULE

Week 1: January 9, 11, 13

Monday

Exercise 1: Efficiency and Opportunity Costs (and Supplement for 544)
Fracking: Three Easy Pieces: Handouts

Wednesday

Exercise 2: The Public Good Game
Green Economics: Acknowledgments, Introduction, Chapters 1 and 3

Friday

Exercise 3: Efficiency: Toxic Dumps and Willingness to Pay
Green Economics: Chapters 4 and 5

Week 2: January 16, 18, 20

Monday

No Class: Martin Luther King Day

Wednesday

Exercise 4: Environmental Policy in Sniffleville
Green Economics: Chapter 7

Friday

Green Economics: Chapter 8 and Appendix
Weitzman, M. 2009. "On Modeling and Interpreting the Economics of
Catastrophic Climate Change," *Review of Economics and Statistics* 1: 1- 9. (544)

Week 3: January 23, 25, 27

Monday

Exercise 5: An International Carbon Tax: Belize

The Greenhouse Development Rights Framework: Chapters 1, 2, 3 and 5

Sheeran, K. 2006. "Side payments or exemptions: The implications for equitable and efficient climate control." *Eastern Economic Journal* 32, 2. (544)

Wednesday

Guest Speaker: Kristen Sheeran, Executive Director, Economics for Equity and the Environment, and Acting Director, coTrust Knowledge Systems Programs

Friday

Exercise 6: An International Carbon Tax: The United States

The Greenhouse Development Rights Framework: Chapters 4, 5, 6 and 7

Sheeran, Kristen. 2006. "Who should abate carbon emissions? A note." *Environmental and Resource Economics* 35, 2: 89-98. (544)

Week 4: January 30, February 1, 3

Monday

Exercise Notebook due

Green Economics: Chapters 9, 10, and Conclusion

Dasgupta, P. 2008. "Discounting Climate Change," *Journal of Risk and Uncertainty* 37: 141-169. (544)

Wednesday

Hahnel, R. 2012. "Left Clouds Over Climate Change Policy," *Review of Radical Political Economics* (44, 2).

Howarth, R. 2003. "Discounting and uncertainty in climate change policy analysis," *Land Economics* 79, 3: 369 – 381. (544)

Friday

Boyce, J. "Who Gets the Money? Distributional Implications of Carbon Revenue Recycling," e3Network.

Week 5: February 6, 8, 10

Monday

Midterm Exam: Bring Green book, pencil, and calculator

Wednesday

Brand: Chapters 2 and 3

"Does Obama Have a Climate Agenda?" <http://ow.ly/8jl1c>

Lane, J. 2011. "Australia's Carbon Tax Debuts."

Pollin, R. 2008. "Green Investments and the Path to Prosperity," *New Labor Forum* (17, 3): 97-101.

Friday

Take Home Mid-term due

Brand: Chapters 8 and 9

Goodstein, Sheeran, Dorman, Laitner and Isham. 2010. "Climate Policy and Jobs: An Update on What Economists Know," e3network.

Week 6: February 13, 15, 17

Monday

Ayres & Ayres: Introduction and chapters 1 and 2

"What Will it Take for Green Jobs to Win?" <http://t.co/6JRRVTv6>

Pollin, Heintz, and Garrett-Peltier. 2009. "The Economic Benefits of Investing in Clean Energy."

Wednesday

Ayres & Ayres: Chapters 3, 4 and 5

Ackerman, DeCanio, Howarth, and Sheeran. 2010. “The Need for a Fresh Approach to Climate Change Economics.” In *Assessing the Benefits of Avoided Climate Change*. Gullede, Richardson, Adkins, and Seidel (eds.)

Kahouli-Brahmi, Sondes. 2008. “Technological Learning in Energy-Environment-Economy Modeling: A Survey.” *Energy Policy* 36, 1: 138–162. (544)

Friday

Ayres & Ayres: Chapters 8, 10 and 12

Steiner, Clark and Yumkella. 2011. “Renewable Future.”

Laitner, John, Stephen DeCanio, Jonathan Koomey, and Alan Sanstad. 2003. “Room for Improvement: Increasing the Value of Energy Modeling for Policy Analysis.” *Utilities Policy* 11: 87–94. (544)

Week 7: February 20, 22, 24

Monday

Van Jones: Introduction and chapter 1

Bush, C. 2010. “Climate Policy and Economic Growth in California.”

Broder, J. 2011. “EPA Scales Back.”

Wednesday

Van Jones: Chapters 2 and 3

Brecher and Smith. 2011. “Labor and the EPA.”

Cooke, S. 2011. “Workers and Environmentalists Unite!”

Friday

Van Jones: Chapters 4 and 5

Books, D. 2011. “Where the Jobs Aren’t.”

Pollin and Wicks-Lim. 2008. “The Green Economy: State by State.”

Week 8: February 27, 29, March 2

Monday

Daly, H. 2002. "Five Policy Recommendations."
Read, R. 2011. "Oregon Homeowners Go Solar."

Wednesday

Curtis, F. 2003. "Eco-localism and Sustainability." *Ecological Economics* 46: 83-102.
Hahnel, R. 2004. "Eco-localism: A Constructive Critique." *Capitalism, Nature, Socialism* (18, 2), June 2007: 62-78.

Friday

New Economics Foundation: *The Great Transition*, all.

Week 9: March 5, 7, 9

Monday

Taylor, B. 2002. "How Do We Get from Here to There?" in *Sustainable Planet*, Schor and Taylor eds., Beacon Press: 233-251

Wednesday

Hahnel, R. 2005. "Protecting the Environment in a Participatory Economy." From *Economic Justice and Democracy*, Routledge, chapter 8: 195-207.

Friday

Hahnel, R. 2012. "Wanted: A Pollution Damage Revealing Mechanism." *Eastern Economic Journal*, forthcoming.

Week 10: March 12, 14, 16: *Readings will be distributed later for this week. Some students may make brief presentations in class from their papers.*