Department of Economics Environmental Studies Program University of Colorado at Boulder Jonathan Hughes jonathan.e.hughes@colorado.edu Office: Economics 4B

ECON 8545 ENVIRONMENTAL ECONOMICS II SPRING 2012 T-TH 9:30-10:45,

is to provide students interested in these topics, the tools necessary to begin conducting their own research.

Office Hours and Contact Information:

Professor: Jonathan Hughes Office location: Economics 4B

Office hours: Tuesdays and Thursdays from 11:00 am to 12:30 pm (or by appointment)

Phone: (303) 735-0220

Email: jonathan.e.hughes@colorado.edu

Class web site: https://learn.colorado.edu/

Background Texts:

There is no required textbook for this course. Course readings can generally be downloaded from JSTOR, NBER, etc. or for other working papers, from the web sites listed in the course schedule. Please *contact me* if you have difficulty downloading the required readings. In addition to these readings, graduate texts in environmental economics, industrial organization and applied microeconometrics will provide useful background to the topics covered in the course. Excellent examples include:

Kennedy, "A Guide to Econometrics."

Angrist and Pischke, "Mostly Harmless Econometrics."

Cameron and Trivedi, "Microeconometrics: Methods and Applications."

Baumol and Oates, "The Theory of Environmental Policy."

Course Requirements and Grading:

Reading/class participation 15%
Referee reports 15%
Midterm exam 20%
Final exam 20%
Research paper/proposal 30%

Reading/Class Participation:

Please come to class each day ready to discuss the assigned reading. Please prepare a ! page summary of each paper that discusses: the main research question; data used in the analysis; the empirical approach, structural versus reduced form, identification of the parameter(s) of interest, etcetera; and any major assumptions or limitations of the study. I will randomly select several of these summaries during the semester to evaluate as part of your class participation grade.

Referee Reports:

Each student is required to submit two original referee reports on unpublished empirical papers in environmental economics. I will select each paper from the NBER EEE or similar working paper series. The report should not exceed 4 pages. Each report should (briefly) summarize the main contribution of the paper, strengths and weaknesses and areas for improveme

Schedule of topics:

* Denote required readings

I. Introduction

* Angrist and Jorn-Steffen Pischke (2010), "The Credibility Revolution in Empirical Economics: How Better Research Design is Taking the Con out of Econometrics." *Journal of Economic Perspectives*, Spring 2010

Angrist and Krueger, "Empirical Strategies in Labor Economics"

* Nevo and Whinston (2010), "Taking the Dogma Out of Econometrics: Structural Modeling and Credible Inference," *Journal of Economic Perspectives*, Spring 2010

Reiss and Wolak, "Structural Econometric Modeling: Rationales and Examples from IO"

B. Electricity and Manufacturing

* Greenstone (2002), "The Impacts of Environmental Regulations on Industrial Activity: Evidence from the 1970 and 1977 Clean Air Act Amendments and the Census of Manufactures." *Journal of Political Economy* 110: 1175-1219.

Bushnell, Chong and Mansur, "Profiting from Regulation: An Event Study of the EU Carbon Market" http://www.dartmouth.edu/~mansur/papers/bushnell_chong_mansur_carboncost.pdf

- * Fowlie (2010), "Emissions Trading, Electricity Restructuring, and Investment in Pollution Abatement." *American Economic Review*, June 2010, 837-869.
- * Fowlie and Perloff, "Distributing Pollution Rights in Cap-and-Trade Programs: Are Outcomes Independent of Allocation?" http://nature.berkeley.edu/~fowlie/distributingpollutionrights.pdf
- * Fowlie, Holland and Mansur, "What Do Emissions Markets Deliver and to Whom? Evidence from Southern California's NOx Trading Program" http://www.nber.org/papers/w15082, forthcoming in *American Economic Review*
- * Ryan, "The Costs of Environmental Regulation in a Concentrated Industry" http://econ-www.mit.edu/files/1166, forthcoming in *Econometrica*

Hortascu and Syverson (2007), "Cementing Relationships: Vertical Integration, Foreclosure, Productivity, and Price" *Journal of Political Economy*, 115: 250-301.

III. Consumers A. Transportation

- * Berry, Levinsohn and Pakes (1995). "Automobile Prices in Market Equilibrium." *Econometrica* 63: 841-890.
- * Busse, Knittel and Zettelmeyer, "Pain at the Pump: The Differential Effect of Gasoline Prices on New and Used Automobile Markets." http://web.mit.edu/knittel/www/papers/gaspaper_latest.pdf

Allcott and Wozny, "Gasoline Prices, Fuel Economy, and the Energy Paradox." https://files.nyu.edu/ha32/public/research/

Klier and Linn (2010), "The Price of Gasoline and New Vehicle Fuel Economy: Evidence from Monthly Sales Data." *American Economic Journal: Economic Policy* 2(3).

* Knittel and Sandler, "Cleaning the Bathwater with the Baby: The Health Co-Benefits of Carbon

* Jacobsen, "Evaluating U.S. Fuel Economy Standards In a Model with Producer and Household Heterogeneity." http://econ.ucsd.edu/~m3jacobs/Jacobsen_CAFE.pdf

Bento, Goulder, Jacobsen and von Haefen (2009) "Distributional and Efficiency Impacts of Increased U.S. Gasoline Taxes," *American Economic Review*, Vol. 99, No. 3, 2009.

Goulder, Jacobsen and van Benthan, "Unintended Consequences from Nested State & Federal Regulations: The Case of the Pavley Greenhouse-Gas-per-

C. Voluntary Measures/Information

* Cutter and Neidell (2009), "Voluntary information programs and environmental regulation: Evidence from 'Spare the Air'." *Journal of Environmental Economics and Management*, 53(3): 253-256.

Reiss and White (2008), "What changes energy consumption? Prices and public pressures." *RAND Journal of Economics* 39(3): 636-663.

Zivin and Neidell (2009), "Days of haze: Environmental information disclosure and intertemporal avoidance behavior." http://www.nber.org/papers/w14271

IV. Estimating Damages A. Air Pollution

Referee Report 2 Assigned. Due: 11/16/10

- * Chay and Greenstone (2005). "Does Air Quality Matter? Evidence from the Housing Market." *Journal of Political Economy*, 113(2): 376-424.
- * Davis (2010). "The Effect of Power Plants on Local Housing Values and Rents." *Review of Economics and Statistics (forthcoming)* http://faculty.haas.berkeley.edu/ldavis/pp.pdf
- * Bajari, Cooley, Kim and Timmins, "A Theory Based Approach to Hedonic Price Regressions With Time Varying Unobserved Product Attributes: The Price of Pollution." http://www.nber.org/papers/w15724

^{*} Currie and Neidell (2005), "Air Pollution and Infant Health: What Can We Learn: ttrv3Q2 (4.") - I

* Albouy, Graf, Kellogg and Wolff, "Aversion to Extreme Temperatures, Climate Change, and Quality of Life." http://faculty.washington.edu/hgwolff/climatewelfare.pdf

Deschênes, Olivier and Michael Greenstone (2008), "Climate Change, Mortality and Adaptation: Evidence from Annual Fluctuations in Weather in the U.S." MIT working paper, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=995830

Zivin, Joshua Graff and Matthew Neidell (2010), "Temperature and the Allocation of Time: Implications for Climate Change." http://www.nber.org/papers/w15717

V. Discussion of final projects