ENNEC 100-Introduction to Energy and Earth Science Economics
Spring 2009, TTh 1:00-2:15, 160 Willard

Instructor: Professor Andrew Kleit, 507 Walker, 5-0711, ank1@psu.edu, Office hours: TTh: 2:30-3:30. Teaching Assistant: Brittany Smith, 123 Hosler, 610-331-0831, brs5061@psu.edu, Office Hours: MW: 4:00-5:00.

Format: This class introduces the economic method of analysis to the environmental and resource questions facing society. It introduces a "paradigm," a way of thinking, that has four elements:

1) what advantages can be gained by using market forces?;
2) what are the drawbacks of the market ("market failures") that may lead to a rationale for government intervention?;
3) what are the drawbacks of using government intervention ("government failure")?;
4) How to apply these three concepts to real-world situations.

The material will be presented through lectures and classroom experiments. A reading packet will be available in the bookstore. Examples of the experiments are in the reading packet. Quizzes and exams are based on problem solving and analysis of relevant economic questions. This implies you will have to explain your answers and show your work to gain proper credit.

This class is the first class in the major in Energy, Business, and Finance (EBF), the minor in Global Business Strategies, and a General Education elective. You should be aware that this is a more challenging class than most of the general education courses offered by the College of Earth and Mineral Sciences. More precisely, it is designed to determine how well students will do in the EBF major.

Some notes: Please contact me using regular email, not ANGEL. I do not read my ANGEL mail regularly. Also, while I am always happy to chat with you, be warned that speaking to me the day of a quiz or exam is unlikely to help you on the quiz or exam. This stuff takes a while to sink in. (This also implies it is not too helpful to "cram" for exams here.)

For advice on how to study for exams and quizzes in this class, I recommend reviewing a statement by James Watson, the Nobel-prize winning discoverer of DNA:

> Learning to think should also make your life easier. During my first university years, I crammed far too much for exams, trying to be on top of all the topics given even semiprominence in my syllabi or texts. It would have been much better to focus on questions my teachers were certain to ask, which I could discern if I paid attention to their main take-home lessons.

Grading:

Quizzes (best 3 out of 4)	15%
Experiments	8
Homework (3 or 4)	10
Mid-Term Exams (2)	34
Final Exam	33

Quizzes and exams will involve essay questions. All homework answers should be typed up, stapled, on one side of the paper, with answers fully explained. (You'll want to fully explain your quiz and exam answers as well.) A small amount of extra credit will be offered in class. Please do not ask your instructor for any more, as this simply serves to annoy him.

Calendar

January 13 (Tuesday): First day of class
January 20 (Tuesday): Experiment I
January 29 (Thursday): Quiz I
February 5 (Thursday): Experiment II
February 19 (Thursday): Quiz II
February 26 (Thursday): Mid-Term I
March 3 (Thursday): Experiment III
March 8 and 10: Spring Break
March 24 (Tuesday): Quiz III
April 14 (Tuesday): Quiz IV
April 21 (Tuesday): Mid-Term II
April 28 (Tuesday): Experiment IV
April 30 (Thursday): Final Class
Date of Final to be announced.

Reading List

All readings will be in the course packet.

I. The Basics of Supply and Demand

Gwartney, Stroup, and Clark, Essentials of Economics, Chapters 2 and 3, pages 21-64.

Norcross, "Rent Control is the Real New York Scandal," Wall Street Journal, September 13, 2008 http://online.wsj.com/article/SB122126309241530485.html?mod=googlenews_wsj

Chapman, "In Defense of Price Gouging," Real Clear Markets, October 3, 2008, http://www.realclearmarkets.com/articles/2008/10/in_defense_of_price_gouging.html

Stoessel, "The Idiocy of Energy Independence," August 20, 2008, http://www.freerepublic.com/focus/news/2064810/posts

Experiment I: Trading
Experiment II: Supply and Demand

II. Market Failure and Government Failure

Mankiw, Principles of Economics, 3rd edition, Thompson Southwestern (2004)
Chapter 10, "Externalities," pages 203-222.
Chapter 11, "Public Goods and Common Resources," pages 223-241

Gwartney, Stroup, and Clark, Essentials of Economics, Chapters 18, pages 379-412.

"There's no way to breeze through this burb," Business Week, June 3, 1991, 20.

Schoenbrod , "The EPA's Faustian Bargain Can the agency reclaim its soul?" Regulation Vol.29, No. 3, Fall (2006) 36-42

Adler, "Clean Politics, Dirty Profits: Rent Seeking Behind the Green Curtain" pages 1-30 in Political Environmentalism: Going Behind the Green Curtain (Terry Anderson, ed.) Hoover, 2000.

Experiment III: Can You Save the Common Pool?

III. Environmental Problems and Market Mechanisms

Oates, "Taxing Pollution: An Idea Whose Time Has Come?", (1988). In Oates, ed., The RFF Reader in Environmental and Resource Management (1999), Resources for the Future, pages 63-68.

Tietenburg, "Using Economic Incentives to Maintain Our Environment," Challenge (March-April 1990) 42-46.

Hsu, "What's Old Is New: The Problem with New Source Review," Regulation 29:1 (Spring 2006) 36-42

Sandel, "It's Immoral to Buy the Right to Pollute," New York Times, December 15, 1997, and responses, December 17, 1997.

Dallas Burtraw, "Trading Emissions to Clean the Air: Exchanges Few but Savings Many," Resources (Winter 1996) 3-6.

Harrington and Morgenstern, "Economic Incentives versus Command and Control: What's the Best Approach for Solving Environmental Problems?" *Resources* Fall/Winter (2004), pages 13 – 17.

Experiment IV: Tradeable Permits

Sanchirico and Newell, "Catching Market Efficiencies: Quota-Based Fisheries Management," Resources (Spring 2003) 8-11.

Brandt, “A Tale of Two Clams,” Regulation (Spring 2005) 18-25.

Costello, Gaines, and Lynham, “Can Catch Shares Prevent Fisheries Collapse?” 321 Science, 1678 (September 19, 2008).

Kinnaman and Kleit, “The New Economics of Landfills in Pennsylvania,” mimeo, September 2001.

IV Energy and Resource Consumption

Tietenberg, Environmental and Natural Resource Economics, (Pearson Addison Wesley, 7th edition, 20066) Chapter 7, pages 129-133, Chapter 14, pages 316-337.

Lomborg, The Skeptical Environmentalist (Cambridge, 2001), Chapter 11, pages 118-136.

Portney, “Nuclear Power: Clean, Costly, and Controversial,” Resources (Winter 2005) 28-30.

Darmstadter and Palmer, “Renewable Sources of Electricity: Safe Bet or Tilting at Windmills?” *Resources*, Winter 2005, pages 24 – 27.

Anderson, “Coal: Dirty Cheap Energy,” *Resources*, Winter 2005, pages 31 – 35.

“Corn Dog: The Ethanol Subsidy is Worse than you Can Imagine,” *Slate*, July 19, 2005, available at http://www.slate.com/id/2122961/.

“Ethanol’s Growing List of Enemies,” *Business Week*, March 19, 2007.

Tietenberg, Environmental and Natural Resource Economics, (Pearson Addison Wesley, 7th edition, 20066) “Climate Change” in Chapter 17, pages 407-421.

Stavins and Goulder, “An Eye on the Future,” *Nature* , October 17, 2002.

Taylor and Van Dorn, "Energy Myth Five — Price Signals are Insufficient to Induce Efficient Energy Investments," in Chapter 6 of *Energy and American Society: Thirteen Myths*,(Springer, 2007).

Bryce, “The Ethanol Scam,” pages 145-198 in Gusher of Lies, Public Affairs, New York (2008).

Naturally, all students are required to follow the University’s policy on academic integrity. Check out www.ems.psu.edu/students/integrity/statement.html if you are interested in the details.