

Course Syllabus

ECO 4332.501 Energy and Natural Resources Economics

Fall 2012

Professor Contact Information

James C. Murdoch
972-883-4989

GR 2.810
Hours: MW 1:30– 2:30 and by appointment

murdoch@utdallas.edu

The Economics Department has a lab that you may visit without an appointment. Any of the graduate students in the lab will be able to help you with your problem sets. The TA for this class is Victoria Obiadazie. I will post her information on eLearning.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

ECON 2302. Realistically, you should have your math requirements out of the way by the time you take this class. If you are an economics major (BA), please take ECON 3304 before or in conjunction with this class.

Course Description

This course is an introduction to the field of natural resources economics with special emphasis on the relationship between the energy sector and resource utilization.

Student Learning Objectives/Outcomes

By the end of the course, you should be able to demonstrate some understanding of:

- Measures of resource scarcity
- Economic models that describe the use of natural resources
- Current issues in the supply and demand for energy
- Current issues in natural resources, including natural gas, water, oil, coal, and fisheries.
- Dynamic efficiency

By the end of the course, you should be able to think critically about:

- The formulation of US energy policy
- The concept of sustainability
- Forecasts of energy demand and supply

Required Textbooks and Materials

Field, Barry C. **Natural Resource Economics: An Introduction 2nd Edition**. Waveland Press.

Suggested Course Materials

None

Readings & Academic Calendar

Exam Dates

First Exam: September 24

Second Exam: October 31

Third Exam: December 12

Final Paper Due: December 19 (5:00 PM)

Course Outline and Study Materials (Tentative)

Part I. Overview of Energy and Natural Resources Issues August 27 – September 19

Field, Chapters 1-2, Chapter 20

Arrow, K. *et al* (2004), "Are We Consuming Too Much?" ***Journal of Economic Perspectives***, Summer 2004, pp. 147-172.

D. Fullerton and R. Stavins, "How Economists See the Environment," ***Nature***, October 1, 1998, pp. 433-434.

"Limits to Growth": <http://www.oxfordmartin.ox.ac.uk/videos/view/141>

William D. Nordhaus, Robert N. Stavins, Martin L. Weitzman (1992), "Lethal Model 2: The Limits to Growth Revisited" *Brookings Papers on Economic Activity*, Vol. 1992, No. 2, pp. 1-59.

(http://www.brookings.edu/~media/Projects/BPEA/1992%202/1992b_bpea_nordhaus_stavins_weitzman.PDF)

Part II. Economic Theory. September 26 - October 15

Field, Chapter 3-10

Part III. Specific Energy and Natural Resources Issues. October 22 - November 12

Field, Chapters 11 – 15.

Barsky, R., and L. Killian. "Oil and the Macroeconomy Since the 1970s." ***Journal of Economic Perspectives***, Vol. 18, no. 4, pp. 115-134.

Others TBD

Grading Policy

Problem Sets:	20%
Exam 1:	20%
Exam 2:	20%
Exam 3	20%
Paper:	20%

Each exam, problem set, writing assignment, etc. will be graded on a 100 point scale (% correct). These will be combined using the weights above and then translated into final letter grades (A+ through F) as follows:

98 – 100	A+	88 – 89	B+	78 – 79	C+	68 – 69	D+	Below 60	F
93 – 97	A	83 – 87	B	73 – 77	C	63 – 67	D		
90 – 92	A-	80 – 82	B-	70 – 72	C-	60 – 62	D-		

I reserve the right to curve the grades in your favor. In other words the assignment from percent correct to letter grade will never be any more stringent than above but it may be more liberal so that, for example, the A-range may extend into the 80s, etc. For each grade, I will go over, in class, the relation between percent correct and letter grade.

Course & Instructor Policies

There are no make-up exams. If you miss an exam, you can take an exam during the final exam period for this class. I will discuss the paper in detail in class. Essentially, you are required to write a 15 (or so) page paper on a natural resource issue of your choice. The critical feature of the paper will be your economic analysis of the issue.

Other Information

<http://go.utdallas.edu/syllabus>