

Course Syllabus

ECO 4332.001 Energy and Natural Resources Economics
Spring 2011

Professor Contact Information

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Hours: W 10:00 – 11:30 and by appointment

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 and natural resources
- Current issues in natural resources, including renewable energy sources, 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: 2th Edition**. Waveland Press.

Suggested Course Materials

None

Readings & Academic Calendar

Dates

First Exam:	February 28
Second Exam:	April 21
Draft Paper Due:	April 14 (4:00 PM)—electronic
Final Paper Due:	Thursday May 5 (2:00 PM) -- electronic
Spring Break:	March 14 - 18

Course Outline and Readings (Tentative)

Part I. January 11 – February 22

Field, Chapters 1-2

- *Meadows,D., Randers,J. and Meadows, D. (2004), **Limits to Growth: The 30-year Update**, Chelsea Green Publishing Co., Vermont. Chapter 1 (pp. 1-16), Chapter 4 (pp. 129-180, scan for terminology).
- *Meadows,D., Randers,J., Meadows, D. and Behrens, W. (1972), **Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind**, Universe Books, New York. Introduction (pp. 9-24), Commentary (pp. 185-197).
- *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.
- *Arrow, K. *et al* (2004), "Are We Consuming Too Much?" **Journal of Economic Perspectives**, Summer 2004, pp. 147-172.

Field, Chapters 3-9

- *Fullerton, D. and R. Stavins (1998), "How Economists See the Environment," **Nature**, October 1, 1998, pp. 433-434.
- *Arrow, K. *et al* (1996), "Is There a Role for Benefit-Cost Analysis in Environmental, Health, and Safety Regulation?", **Science**, April 12, 1996, Vol. 272, pp. 221-222.
- *Kelman, S. (1981), "Cost-Benefit Analysis: An Ethical Critique," **AEI Journal on Government and Society Regulation**, (January/February1981), pp. 33—40.
- *Costanza, *et al* (1997), "The Value of the World's Ecosystem Services and Natural Capital", **Nature**, Vol. 387 (May), pp. 253-260.

Part II. March 1 –April 19

TBA

- *Available on reserve. <http://utdallas.docutek.com/eres/coursepage.aspx?cid=493>

Grading Policy

Problems/Writing:	30%
Class Participation:	5%
Exam 1:	20%
Exam 2:	20%
Paper:	25%

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 will need to see me. Assignments must be turned in by the due date/time. Late assignments will not be accepted. You must attend class to get class participation credit. There may be specific in-class exercises. I will discuss the paper in detail in class. Essentially, you are required to write a 15-20 (or so) page paper on a natural resource/energy issue of your choice. The critical feature of the paper will be your economic analysis of the issue. The paper satisfies the University's core writing requirement.

Other Information

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