NATURAL RESOURCE ECONOMICS
Economics 3535-001, Fall 1997

Vijaya R. Sharma
Class Times: TR 12:30-1:45 at Educ 220
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Course Description:

This course considers the efficient and sustainable use of scarce natural resources of both kinds, exhaustible resources and renewable resources. Although we will review the relevant concepts of microeconomics at the beginning of the semester, Economics 2010, principles of microeconomics is a prerequisite for this course. We limit the mathematical treatment of the theories of extraction of resources to bare minimum and rely extensively on graphical analyses and intuitive explanations to make the course accessible to non-major students.

Grading Policy:

There shall be three midterm exams on three separate sections of the course and a comprehensive final exam, on the dates shown in the schedule below. From the three midterm exams, only two exams shall be counted dropping the one with the lowest score and each midterm exam shall carry a weight of 30%. The rest 40% shall come from the final exam. No make-up exam shall be given. If you miss any exam, that obviously means a zero score in that exam.

Textbook and Readings:


2. A supplemental Reading Packet.

Course Schedule:

The schedule is tentative, but the exam dates are firm.

Aug 26-Sep. 11:

Introduction, Resource Taxonomy, Orientation to the broad issues in natural resource economics, Review of microeconomic concepts, Concepts of dynamic efficiency and sustainability, and Introduction of the methods of determining efficient allocations of natural resources.

Read chapters 1 to 4 and 6 (exclude Chapter 5) of the textbook and give special attention to examples 2.1 (page 20),
4.3 (page 82), 6.1 (page 117), and 6.2 (page 128).

Sep. 16: Midterm 1.

Sep. 18-Oct. 9:

Theory of extraction of exhaustible resources, energy resources, minerals and metals, and recycling of resources.

Read chapters 6 to 8 of the textbook and give special attention to Example 8.1 presented in page 171 of the textbook.

Read from the supplemental packet:
Pearce and Turner: The Effects of Changing Parameters, Solow: The Economics of Resources or the Resources of Economics.


Oct. 16-Nov. 13:

Theory of extraction of renewable resources, water, agriculture, forests, and fisheries.

Read chapters 9 to 12 of the textbook and give special attention to examples 9.1 (page 210), 9.2 (page 212), and 10.1 (page 235).

Read from the supplemental packet:
Howe: The Colorado River: A Brief Case Study,
the newspaper articles: (i) Free Market Forestry and (ii) Conservation Through Commerce,
Miller et. al.: (i) Is Water Different? (ii) Bye, Bye, Bison.

Nov. 18: Midterm 3.

Nov. 20-Dec. 9:

Scarcity of natural resources: indicators and evidences, Sustainable development, conservation and preservation.

Read chapters 13 and 22 of the textbook.

Read from the supplemental packet:

Dec. 16: Final Exam, 3:30-6:30.

Note: IF/IW requests for this course should be submitted before the Thanksgiving at the latest. Drop deadlines according to the university schedule are: Sep. 5 without the instructor’s signature and Oct. 8 without petitioning the dean.