THE GEORGE WASHINGTON UNIVERSITY
Department of Economics
Economics of the Environment and Natural Resources, ECON 237
Spring 2005
Monday, 6:10-8:00 pm, Gelman 607

PROFESSOR: Arun Malik (Office Hours: Mon. 4:00-5:00 pm, Tues. 5:00-6:30 pm, and by appointment, Old Main, 1922 F Street, NW, Rm. 220, Tel. 202-994-5471, amalik@gwu.edu)

COURSE DESCRIPTION. The course will apply the tools of microeconomic theory to analyze a variety of environmental and natural resource problems. A knowledge of microeconomic theory at the intermediate, undergraduate level (e.g., Econ 217 or Econ 101) is essential for the course. Problems will be analyzed using a combination of graphical and mathematical techniques. Although calculus is not required, a few concepts from calculus will be employed; these will be explained in class and in handouts.

REQUIREMENTS AND GRADING. Homework sets will be assigned over the course of the semester. Homework will not be collected, however, detailed answer sheets will be provided. Feel free to ask me about problems you have trouble with. Depending on circumstances, I will go over them in class or during office hours.

There will be a quiz, a midterm exam, and a final exam. The midterm exam will be given on Monday, March 21, 2005 during our regular class time. The time and place of the final exam will be announced later in the semester. The quiz will be given at the beginning of the second class meeting (January 31, 2005); it will test knowledge of key concepts from intermediate-level microeconomic theory.

Non-economics graduate students will be required to write a paper that applies economic concepts and techniques to the analysis of an environmental or natural resource policy issue of their choice. The paper must contain at least twelve pages of text (i.e., not counting diagrams, tables, etc.), the majority of which is devoted to economic analysis. Economics graduate students will be required to solve a problem set that is based on required readings specifically for them. The due dates for the paper and problem set will be specified later in the semester.

The course grade will be calculated using the following weights: quiz -- 5 percent, midterm exam -- 40 percent, final exam -- 35 percent, paper or problem set -- 20 percent.

TOPICS AND READINGS. A tentative list of topics to be covered and accompanying readings is presented below. Readings are divided into two categories: required and optional. All required readings will be either handed out in class or on reserve in the library or available online. For each topic, required readings are listed in the order in which they should be read. Students will be expected to have completed the readings before the class in which they are discussed. Readings marked with a “dagger” (†) are required only for graduate students in economics. Optional readings are marked with either a single (*) or double asterisk (**). Readings with a single asterisk are accessible to all students. Readings with a double asterisk are likely to be accessible only to students with graduate training in economic theory. The textbook for the course is: David W. Pearce and R. Kerry Turner, Economics of Natural Resources and the Environment, Johns Hopkins University Press, 1990. The abbreviation P&T is used when referring to the textbook in the reading list. Other relevant textbooks are listed on the next page, along with their abbreviations if course readings are drawn from them.
TOPICS AND READINGS (cont.)


The following textbooks contain more elementary discussions of many of the topics covered in this course. Students who have trouble following the required readings should consult these texts.


Topic 1: Review of Welfare Economics

AR, Chapter 5.

*Joseph E. Stiglitz, *Economics of the Public Sector*, 2nd ed., Norton, 1988. Chapters 3 and 4. (This is highly recommended for students who have trouble with the material in Randall.)

**B&B, Chapters 3, 4.

Topic 2: Integrating the Environment and Natural Resources in Models of the Economy

P&T, Chapters 1 and 2.

Topic 3: Property Rights and Market Failures

AR, Chapters 8, and 9–pp. 164-184 only.

P&T, Chapters 4 and 5.

†HSW, Chapter 2–pp. 22-49 only.


**B&O, Chapters 2, 3, 4.
Topic 4: Government Failures


Topic 5: Choice of Policy Instruments for Controlling Pollution

P&T, Chapters 6, 7, 8.

†ACF, Chapter 6, pp. 164-203 only

†C&O, Parts I, II, III (pp. 675-700).


*MLP, Chapter V.

**B&O, Chapters 6, 11, 12, 14.
Topic 6: Benefit-Cost Analysis

LDZ, Chapters 11 and 12, 13–pp. 341-361 only.

CSR, Chapters 6, 7, and 8.


†C&O, Part IV (pp. 700-731).

Steven Kelman, "Cost-Benefit Analysis: An Ethical Critique," Regulation, Vol. 10, Jan./Feb 1981, pp. 33-40, along with the replies to this article that appeared in the March/April, 1981 issue of Regulation.


Topic 7: Exhaustible Resources and Scarcity

P&T, Chapters 18 and 19.

†ACF, Chapter 2.


*H&O, Chapters 8 and 9.


Topic 8: Sustainability

PMM, Chapter 3.

H&O, Chapter 12.

†HSW, Chapter 14.


ONLINE MATERIALS. Some course materials will be made available through GW’s online Blackboard system. This system can be accessed at the following URL:

http://blackboard.gwu.edu/webapps/login

You need to have a GW email account to access Blackboard. If you do not already have one, information on obtaining one is provided at the above URL.