Economics 4535, Fall 1997
Natural Resource Economics for Majors

Preliminaries

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Introduction

This course is an overview of natural resource issues facing the US and the world today. This course will use economic analysis to evaluate the informed and responsible use of natural resource systems outputs. There are two prerequisites for this course: Economics 3070, intermediate micro theory and Economics 3808, intro to mathematical economics. Knowledge of supply, demand, profit maximization, the functioning of markets, the role of prices, discounting, the appropriate measures of economic benefits, and market failure is presumed. However, some of these concepts will be reviewed as the course progresses. We will extensively rely on mathematical models to characterize the problems of resource extraction and use. I will maintain a course homepage on the Web that will be updated periodically to provide material of interest to this course. The homepage address is http://spot.colorado.edu/~ahrens/econ4535/4535.html

Grades and Related Policies

There will be several assignments that provide you with the opportunity to work with concepts presented in class. I anticipate a total of six assignments that will be posted on the course homepage. In addition, there will be a mid-term exam and a comprehensive final exam. The mid-term is scheduled for . The final exam is scheduled for Saturday, December 13 at 11:30AM. If you have three or more final exams scheduled on the same day, you are entitled to an alternative exam time for any of the three exams. The instructor must receive evidence of this situation no later than Friday, October 3. Consult the Registration Handbook and Schedule of Course for further information.

The weights of the assignments and exams are given below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Mid-Term Exam</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>35%</td>
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Late assignments will not be accepted under any circumstances. You are encouraged to work together on the assignments, but the work you turn in must be your own. No makeup exams will be given under any circumstances. If the mid-term exam is missed,
for any reason, the weight of the final exam will be increased to 60%. A missed final exam will result in an F for the course. Academic dishonesty will not be tolerated. Confirmed cases of dishonesty will result in an F for the course; other sanctions may be imposed by the University.

Course Text and Reading Requirements

We will rely on a single text in this course. The text is The Economic Approach to Environmental and Natural Resources and will be followed fairly closely. The book is available at both the Colorado Bookstore (on the Hill) and the CU Bookstore (in the UMC).

Course Schedule

The schedule of course topics is listed below. Although the course schedule may change, exam dates are fixed to assist you in planning your term. As the semester progresses, the course schedule will be refined and posted on the course homepage.

**Economic Scarcity and Mitigating Factors**
Reading: *Chapter 18, pp. 460-467*  
8/26-9/4

**The Theory of Exhaustible Resource Extraction**
Reading: *Chapter 9, pp. 242-250*  
9/9-9/18

**Mineral Commodity Topics**  
9/23-9/25

**The Theory of Renewable Resource Extraction**  
9/30-10/9

**The Fishery**
Reading: *Chapter 10*  
10/14-10/21

**The Forest**
Reading: *Chapters 11, 12*  
10/23-11/6

**Water Resources**
Reading: *Chapter 14*  
11/11-11/13

**Agriculture**
Reading: *Chapter 16*  
11/18-11/20

**Biodiversity and Endangered Species**
Reading: *Chapter 13*  
11/25-12/2

**Sustainability**
Reading: *Chapter 18, pp. 468-470*  
12/4-12/9