RES EC 720: Environmental and Resource Economics
Spring 2013

Thomas Stevens
224 Stockbridge Hall
545-5714
tstevens@isenberg.umass.edu
Office hours: By appointment

MW 8:40 - 9:55
Holdsworth 305

Objective and requirements
Res Ec 720 is a graduate course intended to provide an introduction to the field of environmental and natural resource economics. It will cover the major areas of the field including: the economics of environmental policy, the use and conservation of forest, marine and mineral resources, and the valuation of environmental and resource assets.

There will be two exams and a 10-15 page term paper, each with equal weights. Exam dates will be announced in class, and the term paper is due on the last day of class.

Readings
There will be readings assigned for each lecture that we expect you to complete prior to the meeting time. In place of a required text we will provide you with a set of readings. We also recommend that you familiarize yourselves with an undergraduate text like Tom Tietenberg's Environmental and Natural Resource Economics (fifth edition, 2000 or sixth edition, 2003). This text provides intuitive and graphical expositions of topics that we will explore more rigorously. Barry Field's Environmental Economics and Natural Resource Economics are also good undergraduate texts that you may find helpful. If you are considering pursuing research in environmental or resource economics, four advanced texts that cover central topics in detail are:


An interesting and useful blog about environmental and resource economic issues is:
http://www.env-econ.net
Class Outline and Reading List

Readings marked with an (*) in the list below will be stressed and should be read prior to class. The reading list is also meant to serve as a partial bibliography should you wish to delve deeper into a particular topic. If you wish to go even further, please feel free to see me about additional readings. Any changes in this reading list will be announced in class.

I. Social Choice, Markets, and Market Failures (3 weeks)

II. Environmental Policy (2 weeks)
Stranlund, Notes on Uncertainty and Double Dividend

Enforcement of Environmental Policies

III. Natural Resources
a. Nonrenewable Resources; Allocation, Scarcity and Management (2 weeks)
   Basics
   Tietenberg, pp. 133-149.

Sustainability

Energy
T. Tietenberg. 2003. Section to be assigned.

Other: TBA

b.1. Renewable Resources: Forests (1 week)
Basics of Optimal Rotation
Tropical forests

b.2. Fisheries (2 weeks)

IV. Valuation (3 weeks)
Introduction to benefit/cost analysis and measuring willingness to pay

Valuation Methodology
*Smith, "Nonmarket Valuation of Environmental Resources: An Interpretive Appraisal" Journal of Economic Perspectives, (reprinted in Stavins selected readings)
*Hanley, Shogren and White, chapter 13.

V. Case Studies (1 1/2 weeks)
*The Arsenic Controversy.
The Value of Visibility in the White Mountains of New Hampshire.
*Asbestos Case Study.
Food Safety.
Other to be assigned.