

9/03

Reading List  
**Economics of Natural Resources**

Department of Economics  
Econ 330 and Econ 737

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Office hours: M, W 12-2 and by appointment  
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Course Description:

This course integrates economic theory and empirical evidence concerning policy issues in three general areas of natural resources: pollution, renewable resources, and nonrenewable resources. The course teaches students how to apply economics to real world problems. The pollution section discusses the theoretical and empirical problem of regulating pollution including solid waste, air pollution, and global warming. The renewable resource section covers management issues in sustainable activities such as forestry, conservation, and fisheries. The nonrenewable resource section focuses upon how to consume a fixed size resource over time with applications to fossil fuels, minerals, and underground reservoirs.

Course Requirements:

There will be one one-hour exam and one all encompassing final for 20% and 45% of your grade respectively. There will also be a set of weekly problems that will make another 25% of your grade. The remaining 10% is determined by classroom participation. **All graduate students must take Econ 737 and will be required to complete a research paper on a topic of your choice in natural resource economics for one-fourth of your grade.** Undergraduates can write an optional extra-credit research paper on a topic related to the course but they must have the topic approved by October 20th.

Texts:

The two required books are available at the Yale Bookstore: Robert Stavins Economics of the Environment, Selected Readings, 4<sup>th</sup> edition W.W. Norton, 2000 and Thomas Tietenberg Environmental and Natural Resource Economics 6th edition Addison Wesley 2003.

## Introduction

9/3 - Goals of the Course

Ch 1, 2 in TT

Ch 1 in RS

## Pollution

9/8 Market Solutions to Pollution-Coase

Ch 3 in RS

9/10 Public Goods

Ch 4 in RS

Ch 4, 15 in TT

9/15 Government Solutions to Pollution

Quantity Versus Price Rules

Ch 13, 15, 16 in RS

Ch 16-20 in TT

9/17 Taxes, Tradeable Permits, and Ownership

Ch 19, 20, 21, 27, 28 in RS

9/22 Uncertainty

9/24 Global Warming

Ch 22, 23, 24 in RS

9/29 Integrated Assessment

10/1 Valuation-Health

Ch 9-12 in RS

Ch 3 in TT

10/6 Valuation- Visibility, and other damages

Ch 3 in TT

10/8 **Hour Exam**

10/15 Land Use

Ch 11 in TT

10/17 Sustainability

Ch 5 in RS

Ch 5 in TT

10/20 Timber Management- Faustmann

Ch 12 in TT

10/22 Timber- Maximum Sustained Yield and Dynamics

10/27 Biodiversity  
Ch 25, 26 in RS

10/29 Valuation

11/3 Water Management  
Ch 10 in TT

11/5 Commercial Fisheries  
Ch 2 in RS  
Ch 13 in TT

11/10-11/14 No class

11/17 Fisheries Regulation

11/19 Energy  
Ch 7, 8 in TT

12/1 Minerals  
Ch 9 in TT  
Ch 14 in TT

12/3 Environment, Resources, and Growth  
Ch 22, 23, 24

12/19 Final