Colorado School of Mines

EBGN 470/570 – Environmental Economics
Spring 2013

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Lectures: Tuesday and Thursday, 2:00-3:15 GC 265

Office hours: Wednesday 12:00-5:00

Course: This course considers the role of markets as they relate to the environment. Topics discussed include environmental policy and economic incentives, market and non-market approaches to pollution regulation, property rights and the environment, the use of benefit/cost analysis in environmental policy decisions, and methods for measuring environmental and non-market values.

Prereq’s: EBGN301, or permission of instructor. It will be assumed that students are familiar with using calculus in economic analysis.

Textbooks:


Selected readings will be posted each week on Blackboard. Material will be drawn from the two texts, as well as from academic journals (journal articles will be placed on Blackboard).

Blackboard: Course material will be posted on Blackboard: http://blackboard.mines.edu
I’ll be putting up a copy of the syllabus, notes, and other class material and documents on the class page, as well as using it for announcements.

Grading:
Class Participation 5%
Unit Reviews 10%
Term Paper 30%
Midterm 25%
Final Exam 30%
**Class Participation:** Students are expected to have read all materials prior to class, and should be prepared to discuss and answer questions regarding the readings.

**Unit Reviews:** At the end of each unit, a 2-3 page review of the material covered will be required. The student is expected to summarize the material covered, discuss the key papers/results related to the unit, and discuss open and unresolved questions or debates related to the unit.

**Term Paper:** The term paper represents a fairly intensive research project that will draw on one (or more) of the topics we cover in class. Around Week 10, students will provide a proposal with some detail on the topic and scope of the study (5%), and the final paper will be due the last week of class (25%).

**Exams:** The exams will be short answer and essay. Roughly speaking, the midterm will cover the theory of environmental economics, and the final will be comprehensive with an emphasis on the material not covered by the midterm.

**Academic Integrity:** Your reputation as an honest scholar is one of the most valuable commodities you possess. As such, I expect that work with your name on it truly constitutes your own work, whether it be on homework assignments or exams. If preservation of your reputation is not a sufficient incentive, University regulations on ethics and honesty detail the punishments up to and including dismissal for academic dishonesty. Do not hesitate to see me if you have any questions at all regarding this during the semester.

**Tentative Schedule**

I. Economics and the Environment - January  
   A. Introduction  
   B. Tragedy of the Commons  
   C. Problem of Social Cost

II. Theory of Market Failure and Externalities - January and February  
   A. Market Success  
   B. Public Goods  
   C. Common Property  
   D. Externalities  
   E. Nonconvexities and asymmetric information

III. Valuing the Environment - February  
   A. Willingness-to-pay and Willingness-to-accept  
   B. Hedonic Models  
   C. Travel Cost and Averting Expenditures  
   D. Contingent Valuation and Stated Preferences
Midterm – End of February

IV. Cost-Benefit Analysis - March
   A. Ethical critiques of CBA
   B. Discounting the Future
   C. Uncertainty and Quasi-option Value

V. Environmental regulation - March and April
   A. Command and Control
   B. Pigouvian Taxation
   C. Tradable Permits
   D. SO2 Cap and Trade

VI. Topics - April
   A. Prices versus Quantities
   B. Double-dividend Hypothesis
   C. Environmental Kuznetz Curve
   D. Sustainability