Course Description

This class is one of four in the environmental/urban economics field. The classes can be taken in any order.

This class will look at public goods and externalities in the environmental context. It will consider policy tools and other institutions for addressing these effects. It will also consider the problem of estimating people’s demand for environmental goods, necessary information for some policy approaches. Finally, it will consider applied evaluation of some policies.

The course’s objectives are to introduce you to environmental problems and policy solutions, to teach state-of-the-art econometric procedures for designing and evaluating policies, and to give you practice in the activities of professional research economists.

Required texts

The following texts are required:


The following text is recommended but not required:


In addition, there will be numerous readings assigned. Hard-to-come-by readings will be available on the Desire2Learn page.
Grades

take-home midterm 25%
class participation 25%
referee report (3-6 p.) 10%
research paper (20-30 p.)
  -intermediate deadlines 5%
  -final paper 25%
  -presentation 10%

Note on class participation

While some days will be predominantly lecture-based, others will be based on seminar-style discussion of a paper or group of papers. On these days, students will be called on at random to present a 10 minute overview of the paper, after which we will have a group discussion. Thus, class participation is a critical part of the semester.

Readings marked with a double-star (**) are designated as student-led discussion. But students are expected to be able to contribute to discussion for all papers marked with a * as well.

Note on writing assignments

We will have two writing assignments. The first assignment is a referee report. You must pick a recent (within three years) working paper to review. Excellent places to find such papers include:

- the NBER environment/energy group
  http://www.nber.org/papersbyprog/EEE.html;
- the NBER environmental meetings
  http://www.nber.org/summer-institute/ choose a year and select the <eee> line;
- Resources for the Future (RFF)
  http://www.rff.org/rff/Publications/Discussion_Papers.cfm; and
- Fondazioni Eni Enrico Mattei (FEEM)
  http://www.feem.it/getpage.aspx?id=73&sez=Publications&padre=20&tab=1

but you are not limited to these. If you are thinking strategically the paper will be related to your own research paper (see below).

You must prepare a 1-page cover letter to the imaginary editor for whom you are reviewing the paper, summarizing the paper, evaluating its contribution and merit, and offering advice on accepting or rejecting the paper. Separately, you must provide constructive comments to the author.

Second, we will have a research paper. The paper may be based on one you have already done for another class or it may be entirely new. In the former case, it must relate to the environment in some way. Additionally, we must agree on what the "value added" of the semester will be,
above your previous drafts. In the latter case, I typically will look for a good theory section and motivation, and the beginning of data analysis, but each paper's contribution can be discussed on a case-by-case basis. Some will have more theory, some more empirical work, etc. In either case, you will have intermediate deadlines of (i) choice of topic; (ii) 1p. overview, with research question, 3 citations to literature, statement of your contribution, and identification of data (if relevant); (iii) description of data and summary statistics and longer bibliography.

Writing assignments will be graded on your analysis, your application to questions of policy and academic interest, and your writing. The Writing Studio is a valuable resource for students who need help with their writing.

All final writing assignments will be distributed to the entire class.

**Deadlines**

The deadlines for these assignments are as follows:

*On or Before...*

- Feb 6 -- meet with me to discuss your research paper & your choice of paper to review
- Feb 20 -- referee report due to me & entire class by 5 PM (email is fine)
- March 1 -- 1p. overview due by 5 PM
- March 13 -- take home exam distributed in AM and due by 5 PM (under my door or by email)
- April 3 -- draft bibliography plus descriptive writeup of data (or alternative) due by 5 PM
- April 24 -- final paper due to me & entire class by 5 PM

Presentations during exam week

Please see the Policy on Academic Honesty (Section 409).

**Course Outline**

**Abbreviations**

- AER  American Economic Review
- JEEM  Journal of Environmental Economics and Management
- JEL  Journal of Economic Literature
- JPE  Journal of Political Economy
- QJE  Quarterly Journal of Economics
- REEP  Review of Environmental Economics and Policy
- RESTAT  Review of Economics and Statistics

**indicates student-led discussion**

* indicates highest priority reading

◦ indicates optional reading
Introduction

Jan 12  Introduction to environmental economics

* Freeman et al., Ch. 1.

Externalities and Public Goods

Jan 14  Theory of externalities

* Cornes & Sandler Chs. 3-4.

Jan 19  No Class: MLK Day

Jan 21  Non-rivalry, excludability, and Samuelson's theory of public goods

* Cornes & Sandler Ch. 6.

Jan 26  Commons and open access goods

* Cornes & Sandler § 8.4 - 8.5.

Jan 28  Impure and mixed public goods

* Cornes & Sandler § 8.1 - 8.3.
Feb. 2  Club goods and the Tiebout model

* Cornes & Sandler Ch. 11


Feb 4, 9  Introduction to policy instruments, regulatory and Pigovian solutions

* Hanley et al. §4.1-4.2


Feb. 11  Coase and common law


Feb. 16  New institutional approaches

Feb. 18  Cap-and-Trade
   * Hanley et al. §4.4

Dynamics of Natural Resources

Feb. 23  Nonrenewable resources
   * Hanley et al. Ch. 7-8

Feb. 25  Renewable resources: Fisheries & livestock
   * Hanley et al. Ch. 9

March 2  Estimation of dynamic efficiency costs

March 4  Renewable Resources: Forestry
   * Hanley et al. Ch. 10
March 9  Environmental federalism: Applications to tropical deforestation and US air quality


Welfare Economics

March 11  Consumer surplus and welfare aggregation

* Freeman et al., Ch. 3


Spring Break

March 23  Consumer surplus and welfare aggregation, cont'd

March 25  Discounting


March 30  Uncertainty

* Freeman et al. Ch. 5 (up to p. 151)


Nonmarket Valuation

April 1  Nonmarket valuation: Introduction

* Freeman et al., Ch. 4.

April 6  Stated preference  [We will appoint presentations in advance]

* Freeman et al., Ch. 12


April 8  Property values and hedonics: Introduction

* Freeman et al., Ch. 10.

April 13  Hedonics: Identification and endogeneity problems


April 15  Travel cost models and outdoor recreation

* Freeman et al., Ch. 9


April 20  Averting behavior and health valuation

* Freeman Ch. 7, especially pp. 211-27.


April 22  Green GDP and sustainability

* Hanley et al. Ch. 2


April 27  The social cost of carbon (papers are in dialogue with one another and will be discussed as a group rather than individually)


Additional Notes

- The course syllabus provides a general plan for the course; deviations may be necessary.

- Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation

- Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.