

# Environmental Economics and Policy 100

Syllabus – Fall 2009 – November 19, 2009

## Website

b-Space site is here  $\Leftarrow$  clickable!

## Technology

Do not use laptops or cell phones in lecture. Penalties: first use = warning; second use = 5 points off your *course* grade; third use = fail. To encourage class attendance, lecture videos will be posted one week later — or not; this is an endogenous question.

## People

**Instructor:** David Zetland (dzetland@gmail.com). I will have office hours in Giannini 210 from 12:30 to 1:30 on Tuesdays and 3:30 to 4:30 on Thursdays.

**GSI:** Fei Han (feigsi@gmail.com) and Diana Lee (dlee@are.berkeley.edu). Fei's office hours are Wed 5-6 and Fri 3-4 in Giannini 314; Diana's are from 1-3 on Thu in Giannini 311.

## Class Times

Item	Day/Time	Location
Lecture	T/R, 11:10-12:30	101 LSA
First Lecture	R, Aug 27	
Disc 101	M 3-4	2311 TOLMAN
Disc 102	W 2-3	45 EVANS
Disc 103	W 4-5	2311 TOLMAN
Disc 104	F 2-3	2311 TOLMAN
Labor Day	M, Sep 7	no discussions!
Thanksgiving	R, Nov 26	no discussions!
Last Lecture	T, Dec 8	

## Grades

- Assignments are due at the start of class (11:10 am). Late assignments receive zero points.
- Each assignment is worth the points shown.
- Your grade will be based on your total points. I will try to stay with traditional cut-offs (90+ points for an A), but I will look at the distribution of scores ("the curve") before deciding final cut-offs.
- ALL requests for regrading need to be typed and received within 2 classes, e.g., if you get your grade back on Tuesday, your request for a regrade is due at start of next Tuesday's class.

## Assignments

Item	Points	Due Date
Discussion	0, 5, 10	for attendance ( $> 3$ , 2-3, 1 missed)
Frank & Hazlitt	n/a	Sep 18
Homework 1	0-5	Sep 24
Blog post	0-10	Oct 1
Homework 2	0-5	Oct 8
Midterm	0-15	Oct 15
Hayek	n/a	Oct 13
Briefing 1*	0-10	Nov 10
Homework 3	0-5	Nov 24
Olson & Schelling	n/a	Nov 24
Briefing 2*	0-10	Dec 1
Peer-Grading	2 @ 0-5	one week after briefing
Final exam	0-20	Dec 15, 5-8P

\* Bring 3 COPIES of each briefing. Zero points for 1 or 2 copies!

## Experiments

We will run experiments in discussion (weeks 2, 8, 11?). They are worth neither money nor points, but you will learn more than I will teach you!

## Reading

### Required Texts (approx cost \$55)

#### Finish by Sep 18

Frank, Robert (2007) *The Economic Naturalist* [AMAZON] \$6

Hazlitt, Henry (1988). *Economics in One Lesson*. [AMAZON] \$11. Free online versions: [html], [PDF], or b-space.

#### Finish by Oct 13

Hayek, F. A. (1945) “On the Use of Knowledge in Society” [PDF] *American Economic Review*. vol 35, 519-530

#### Finish by Nov 6

Gordon (1956), Coase (1960) and Hardin (1968) [PDFs on b-space]

#### Finish by Nov 20

Olson, Mancur (1971). *The Logic of Collective Action*. [AMAZON] \$22

Schelling, Thomas C. (1960) *Micromotives and Macrobehavior* [AMAZON] \$12

## Optional Reading

### Books

The Economist magazine, *The Tipping Point*, *The Black Swan*, *The Elusive Quest for Growth*, *Seeing Like a State*, *Small is Beautiful*

### Textbooks!

Choose what you like. Prior years used: Nicholson, *Microeconomic Theory* (10th ed. 2008) [\$92–132] and Perloff, *Microeconomics: Theory & Application with Calculus* (2008) [\$70–140]

## Lectures

**Microeconomic Theory with Application to Natural Resources:** Covers the basic microeconomic tools for further study of natural resource problems. Theory of consumption, production, theory of the firm, industrial organization, general equilibrium, public goods and externalities. Applications to agriculture and natural resources.

### Detailed Schedule – Subject to Random Changes!

30 classes (26 lectures; 2 guest lectures; 1 midterm; 1 holiday).

#### Aug 27 (R) L1 Overview

- All about me (teaching philosophy; career; travels)
- Thinking like an economist (messy!)
- Math (1+1 = 2?)
- Power (grades!), political economy (equity/efficiency, who/how much)
- Resources v. environment
- Markets, missing markets, no markets
- Statics v. dynamics

- bargaining vs. efficiency (PD)
  - Syllabus
- Sep 1 (T) L2 Claire Tompkins on Water Markets**
- Sep 3 (R) L3 Damian Bickett on Transportation**
- Sep 8 (T) L4 STATICS A**
- Supply and Demand
  - surplus, DWL, elasticity
  - shifts vs moves along
- Sep 10 (R) L5 STATICS B**
- Consumers: from utility to demand
  - income elasticity, price elasticity, substitutes/complements
  - $U_{\max}$ ,  $MU=MC$
- Sep 15 (T) L6 STATICS C**
- Producers: from cost fn to supply curve
  - $MR=MC$ , profit-max
  - $AC/MC/TC/FC/VC$ , profit (economic vs accounting), LR/SR
- Sep 17 (R) L7 STATICS A**
- More Supply and Demand
  - scale, scope
  - costs: opportunity, sunk, cost-benefit, accounting
- Sep 22 (T) L8 STATICS A**
- Multiple markets
  - GE/PE (substitutes/complements/cross-price elasticity 2)
- Sep 24 (R) L9 STATICS C**
- competitive to oligopoly to monopoly (Lerner Index)
  - surplus, rents, regulation, schumpeter
  - the difference between a tax and a regulation
- Sep 29 (T) L10 STATICS C**
- more on market competition/out of equilibrium behavior
  - price discrimination
- Oct 1 (R) L11 STATICS A**
- Missing markets/no markets. Trade (comp advantage)
  - shadow values. time vs. money (opp cost 2)
- Oct 6 (T) L12 STATICS A**
- property rights (public/private/common-pool/club)
- Oct 8 (R) L13 STATICS B**
- free riders/public goods/collective action
- Oct 13 (T) L14 STATICS A**
- externalities/pigouvian taxes
  - Optimal extinction/renewable vs. non renewable
- Oct 15 (R) MIDTERM**
- Oct 20 (T) L15 DYNAMICS A**
- Midterm feedback
  - Students feedback
  - Overview: time, games, nature, information
  - simultaneous and sequential
- Oct 22 (R) L16 DYNAMICS B**
- principal-agent (and beneficiary). moral hazard, adverse selection. microfinance

**Oct 27 (T) L17 DYNAMICS B**

- Market failure, government failure
- intrinsic/extrinsic motivation (no market)

**Oct 29 (R) L18 DYNAMICS B**

- PAB 2 – bureaucracy, regulators, politicians
- Market failure, government failure 2

**Nov 3 (T) L19 DYNAMICS B**

- game theory (ludic vs. conflict)
- bounded rationality, cheater detection, race, risk aversion

**Nov 5 (R) L20 DYNAMICS B**

- collective action, special interests

**Nov 10 (T) L21 DYNAMICS C**

- information (perfect, complete, missing)
- risk (expected utility) vs uncertainty (Knightian)

**Nov 12 (R) L22 DYNAMICS C**

- Guest lecture: Ties Rijcken on Dutch interest groups

**Nov 17 (T) L23 DYNAMICS D**

- Reaction functions: Bertrand, Cournot and Stackelberg

**Nov 19 (R) L24 DYNAMICS D**

- Option values, intertemporal equilibrium and discounting (social vs market discount rates)
- Climate change, Copenhagen (<http://en.cop15.dk/>)

**Nov 24 (T) L25 DYNAMICS D**

- Water: population/growth, groundwater, OPM

**Nov 26 (R) NO CLASS**

**Dec 1 (T) L26 DYNAMICS D**

- Fisheries
- ITQs, tuna, halibut, W Africa, oysters/reef, jellies/squid

**Dec 3 (R) L27 DYNAMICS D**

- Collective action problems: agriculture, water, war, drugs

**Dec 8 (T) L28 LAST CLASS**

- As part of RRR week, there will be *no new material* in this class!
- Review of results from PGG experiment in discussion sections
- Q & A

**Dec 15 (T) FINAL EXAM @ 5pm**