Course Description

Economics 713 is the second half of the first-year graduate microeconomics sequence. Lones Smith teaches the first half of the course (partial and general equilibrium theory), and I teach the second (information economics).

Reading Materials


Versions of most of the models we will consider can be found in MWG, Ch. 13, 14, and 23. Versions of most of them are also in Jehle-Reny, Ch. 8–9, whose treatments I generally prefer. Many are also in Fudenberg-Tirole, Ch. 7 and Sec. 8.2 and 11.2. Myerson, Ch. 6 offers a fine Myersonian overview of many of the ideas we will see.

Salanié provides an streamlined presentations of the classic signaling and screening models and contract theory. Riley is a useful survey of signaling and screening models and their applications. Laffont-Martimort and Bolton-Dewatripont are detailed treatments of contract theory.

Matthews gives a very careful introduction to auctions and mechanism design in the basic independent private values environment. Krishna and Milgrom and are excellent books on auction theory and mechanism design which emphasize different aspects of the theory; Krishna covers the basics in somewhat more detail.
Readings, Problem Sets, and Exams

The course is divided into five sections whose contents are described in the course outline below. The readings listed before the parentheses (mostly from MWG) cover all of the topics I’ll lecture about. The readings in parentheses are equally good and provide different perspectives on the same material.

Section 1: Lecture notes (Jehle-Reny, sec. 7.2.3 and 9.2, MWG, sec. 8.E; Krishna, ch. 2)
Section 2: MWG, ch. 13 (Jehle-Reny, sec. 8.1)
Section 3: MWG, ch. 14 and p. 900–903 (Salanié, sec. 5.1–5.2 and ch. 2, but not the (incorrect) proof on p. 23–24).
Sections 4, 5: MWG, ch. 23 except p. 873–876 and 906–910; Jehle-Reny, sec. 9.5 (Jehle-Reny, sec. 9.3–9.4; Krishna, ch. 5)

There will be five problem sets. The due dates are as follows: #1, Tuesday, March 29; #2, Tuesday, April 5; #3, Tuesday, April 19; #4, Thursday, April 28; #5, Thursday, May 5.

The lone exam will take place on Saturday, May 7 from 9:30 to 11:30.

Contact information

My office is 7436 Social Science. You can reach me by e-mail at whs@ssc.wisc.edu or by phone at 263-3858. My office hours are on Tuesdays and Fridays from 2:30 to 3:30, or by appointment. The course website is

http://www.ssc.wisc.edu/~whs/teaching/713
Course Outline

Section 1 (3 lectures): Bayesian games
Definitions
Computing Bayesian equilibria
Interpretation
Auctions and other examples

Interlude: Introduction to information economics

Section 2 (2 lectures): Signalling and screening with competing uninformed players
The market for lemons
Job market signalling
Screening in insurance markets

Section 3 (4 lectures): Principal-agent models
Moral hazard
Adverse selection: monopolistic screening

Section 4 (3 lectures): Mechanism design I
Mechanism design problems and the revelation principle
Incentive compatibility, payoff equivalence, and revenue equivalence
Revenue maximization and optimal auctions

Section 5 (2 lectures): Mechanism design II
Allocative efficiency, budget balance, and individual rationality

If time permits: Correlated types, full surplus extraction, and the Wilson doctrine.