Syllabus - Economics 711, Part 2

Course Description

Economics 711 is the first half of the first-year graduate microeconomics sequence. Lones Smith teaches the first half of the course (basic decision theory and consumer theory), and I teach the second (game theory).

Reading Materials

This course will closely follow my lecture notes, which will be distributed in class. Here is a list of books that may be helpful:


Myerson, Fudenberg-Tirole, González-Díaz et al., and Ritzberger are fine graduate game theory textbooks: the first is encyclopedic; the second and third cover many basic topics in detail; and the fourth emphasizes foundational issues. Luce-Raiffa is excellent on classical topics in game theory. Osborne is my favorite undergraduate game theory textbook. van Damme is the standard reference on equilibrium refinements. Mailath-Samuelson is the definitive treatment of repeated games.
Readings, Problem Sets, and Exams

The course is divided into five sections whose contents are described in the course outline below. Below I mainly suggest readings from Fudenberg and Tirole, but one can substitute corresponding readings from the other graduate game theory textbooks listed above.

Section 1: Fudenberg and Tirole, Sec. 1.1 and 2.1
Section 2: Fudenberg and Tirole, Sec. 1.2–1.3 and 2.2–2.3
Luce and Raiffa, App. 2–4
Section 3: Fudenberg and Tirole, Ch. 3 and Sec. 4.1–4.2 and 4.4
Section 4: Fudenberg and Tirole, Sec. 8.1 and 8.3–8.4
Section 5: Fudenberg and Tirole, Sec. 4.3 and 5.1

The due dates for the first four problem sets are as follows: #1, Thursday, Nov. 10; #2, Tuesday, Nov. 22; #3, Thursday, Dec. 1; #4, Tuesday, December 13. The fifth problem set will not be collected.
The lone exam will take place on Saturday, December 17th 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/711
Course Outline

Section 1 (3 lectures): Normal form games I
- Basic concepts
- Dominance
- Iterated strict dominance
- Rationalizability
- The separating hyperplane theorem
- Weak dominance and iterated weak dominance

Section 2 (3 lectures): Normal form games II
- Nash equilibrium
- Correlated equilibrium
- The minmax theorem

Section 3 (2 lectures): Extensive form games I
- Basic concepts
- The principle of sequential rationality
- Games of perfect information and backward induction

Section 4 (3.5 lectures): Extensive form games II
- Games of imperfect information and sequential equilibrium
- Invariance and proper equilibrium
- Forward induction

Section 5 (1.5 lectures): Repeated games
- Basic concepts
- The folk theorem