

### Advanced Microeconomic Theory II

The second quarter of the Ph.D. microeconomics sequence, this course covers the fundamentals of information and decision theory, game theory and imperfect competition. There will be biweekly problem sets, an in-class midterm and an in-class final.

You should own (or have regular access to) the principal text, *Microeconomic Theory* by Mas-Colell, Whinston and Green (Oxford, 1995, ISBN=0-19-507340-1, **denoted MWG** below).

You also should have at least occasional access to two secondary texts: *The Analytics of Uncertainty and Information*, by Hirshleifer and Riley (Cambridge University Press, 1992, **denoted HR** below)

for information and decision theory, and an undergraduate text in game theory such as *Strategy: An Introduction to Game Theory, Second Edition* by J. Watson (WW Norton, 2008, ISBN-13=978-0393929348 **denoted W08** below).

Many students still find very helpful the text *Game Theory for Applied Economists*, by Robert Gibbons, Princeton University Press, 1992.

It will be useful on occasion to consult the alternative texts *A Course in Microeconomic Theory* by David M. Kreps (Princeton University Press, 1990) and *Microeconomic Analysis, 3rd Edition*, by Hal R. Varian (Norton, 1992).

All these books will be on reserve in the Science Library. Lecture notes and additional optional readings will be posted on the class website <http://leeps.ucsc.edu/classes/204B/>.

The class meets Tu Th 11:40am – 1:15PM in Porter Acad 250, and section meets Mondays 3:30-4:30 in 499 Engineering 2. Office hours are W 2-4 pm in 417 Engineering 2, and by appointment.

#### Tentative Schedule

dates	Topics	Readings
Jan 10, 12, 17, 19	Overview; Information and Decision Theory	MCWG: Ch 6; HR: Ch 1,2, 5.
Jan 24*, 26	Game Theory: Trees and Matrices	MCWG: Ch 7; W08: Ch 1-4.
Jan 31, Feb 2	Non-cooperative solution concepts	MCWG: Ch 8; W08: Ch 5, 6, 9, 11.
Feb 7*, 9**, 14, 16	Dynamic games, repeated games	MCWG: Ch 9, App.12A; W08: Ch 14, 15, 22, 28
Feb 21, 23, 28*, Mar 1	Cooperative games, evolutionary games; Some applications to imperfect competition	MCWG: Ch 12; W08: Ch 18, 19, 21.
Mar 7, 9, 14*, 16	Asymmetric Information Models	MCWG: Ch 13-14; W08: Ch 24-29.

\* indicates homework due date, \*\* indicates midterm exam date.

The **Final Exam** is in class 4-7 p.m. Wednesday, March 22.