

## MICROECONOMIC THEORY I

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**Outline** In Microeconomic Theory I we focus on the Individual Choice Theory. The second part of the Microeconomics sequence, Microeconomic Theory II, considers Interdependent Decisions and Game Theory. Together the two courses provide a rigorous introduction to the methods of microeconomic theory. The main emphasis is on the analytical techniques and modeling issues, but applications and examples are also discussed whenever appropriate (you will find some applications in the problem sets).

Readings for Microeconomic Theory I. There is a single required textbook for the course:

- “Microeconomic Theory” by Mas-Colell, Whinston and Green, Oxford University Press, 1995. (MWG)

This book is encyclopedic, and obviously we do not aim to cover all of the material in it. To complement MWG in the section on Individual Choice, I also suggest

- “Notes on the Theory of Choice” by Kreps, Westview Press, 1988,

This book covers abstract choice theory and models of choice under uncertainty. It is essential reading for those of you with a theoretical leaning. Parts of the book are mathematically challenging, but the main arguments are beautifully laid out in an easy to understand form.

Other useful books that cover and extend the material presented in the course include:

- "Lecture Notes in Microeconomic Theory: The Economic Agent", by Ariel Rubinstein, Princeton University Press 2004 (downloadable from Rubinstein's homepage)

Didactically superb.

- “Theory of Value” by Gerard Debreu, Yale University Press, 1959.

Masterpiece in minimalism. First half of MWG in 100 pages.

- "Advanced Microeconomic Theory", by Geoffrey Jehle and Phil Reny, Addison Welsey, 2000.

Precise style and compact presentation.

- “The Economics of Risk and Time” by Christian Gollier, The MIT Press, 2001.

An overview of recent developments in expected utility theory.

- “Mathematics for Economists” by Carl Simon and Lawrence Blume, W.W. Norton&Company, 1994.

Many applications to economics.

**Assessment.** The method of assessment for Microeconomic Theory I and II is either via a single joint exam for both parts, or via midterm exams after each part, each having 50% weight. Problem sets will be distributed throughout the course. It is *essential* that you attempt these on time. Your right to participate in the examinations is conditioned on making a genuine attempt of solving 1/3 of the problem set questions.

**Structure.** The structure of the course is the following ( $8 \times 3\text{h}$  lectures):

1. Choice theory, choice rules, preference relations, utility representation.
2. Classical consumer theory
3. Classical consumer theory
4. Choice under uncertainty
5. Choice over time
6. Equilibrium in exchange economies
7. Producer theory
8. General Equilibrium

### **Additional readings**

- Rubinstein A (2006), "Dilemmas of An Economic Theorist", *Econometrica* 74, 865-883;
- Gul, F. and W. Pesendorfer (2006), "The Case for Mindless Economics", manuscript, Princeton University;
- Camerer, C. and G. Loewenstein and D. Prelec, (2005), What Economics Can Learn from Neuroscience, *Journal of Economic Literature*, 43, 9-64;

- Starmer, C. (2000), "Developments in Non-Expected Utility Theory: The Hunt for a Descriptive Theory of Choice Under Risk," *Journal of Economic Literature*, 38, 332-82;
- Schmeidler, David (1989): "Subjective Probability and Expected Utility without Additivity," *Econometrica*, 57 (3), 571-587;
- Rabin, M. and R. Thaler (2000), "Anomalies: Risk Aversion," *Journal of Economic Perspectives*;
- Rabin (2000) "Risk Aversion and Expected-Utility Theory: A Calibration Theorem," *Econometrica* 68(5), 1281-1292;
- Klibanoff, P. and M. Marinacchi and S. Mukerji (2005), "A Smooth Model of Decision Making under Ambiguity", *Econometrica* 73, 1849-1892;
- Fishburn, P. and Rubinstein, A. (1982), "Time Preference", *International Economic Review* 23, 677-95.