

MICROECONOMIC THEORY III — PART 1

Time

Fri 234 (Lecture)

Mon 34 (Discussion)

Instructor

Tsung-Sheng Tsai / Chen-Ying Huang

COURSE DESCRIPTION

This course is composed of two parts. Each part is taught by one instructor. The first part covers some fundamental theories in microeconomics, i.e. the decision making of consumers and firms. The second part covers game theory. The goal of this course is to provide some basic tools for you to develop a formal treatment of these subjects and apply them to relevant issues.

TEXTBOOKS

1. *Microeconomic Theory*, by Mas-Colell, A., M. D. Whinston, and J. R. Green, Oxford University Press, 1995.
2. *Microeconomics Analysis*, by Varian, H. R., W. W. Norton & Company, 1992 (3rd edition).

GRADING

1. **Exam (60%):** An examination will be given at the end of the first part, covering all the material taught.
2. **Homework (40%):** Each group (composed of 3-5 persons) hands in the assigned homework jointly.

COURSE OUTLINE

1. Consumer behavior (Mas-Colell, Ch. 2-4; Varian, Ch. 7-10)
 - Choice, preference, and utility
 - Demand
 - Consumers' surplus and aggregate demand
2. Production (Mas-Colell, Ch. 5; Varian, Ch. 1-5)
 - Technology
 - Profit maximization and cost minimization
 - Duality
3. Choice under Uncertainty (Mas-Colell, Ch. 6; Varian, Ch. 11)
 - Expected utility theory
 - Risk aversion
 - State-dependent utility and subjective probability theory

Micro Theory

Textbook: Microeconomic Theory, Mas-Colell, Whinston and Green

Here is a list of topics that I plan to cover this semester.

1. basics
2. strictly dominant, never best response, iterated elimination, rationalizability, knowledge
3. Nash, existence, Bayesian, proper, perfect
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5. SPNE, backward induction, repeated game
6. sequential rationality, forward induction, intuitive criterion
7. one shot deviation, folk theorem
8. cooperative game, core equivalence, bargaining set, stable set
9. monopoly pricing
10. static models of oligopoly
11. entry
12. strategic precommitments