

Microeconomics
Graduate School of Public Policy
University of Tokyo

Term: Summer 2005

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Teaching Assistant: Naoki Wakamori, Graduate School of Economics,
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Class Meetings:

Instructor session 1: 13:10 – 14:50, Monday

Instructor session 2: 15:00 – 16:40, Wednesday

TA session: 16:50 – 18:30, Wednesday

Lecture Room: TBA

Instructor Office Hours: Room 801, Economics Building, 13:00 - 15:00, Tuesday

TA Office Hours: TBA

Course Description

- This course covers the fundamental aspects of microeconomic theory that are required to the understanding of contemporary economic studies. A good comprehension of microeconomics is essential to the modelling of the behavior of individuals, households, firms, and markets, and therefore to the analysis of public-policy issues. My objectives are to provide the conceptual basis and core principles of microeconomics, and to “prepare” you for your future needs in this program. A good understanding of microeconomics is also essential before you graduate to the real world of policy evaluations.
- The emphasis of this course is on the economic intuition. You not only have to “learn” the class materials, but also have to “handle” them as tools for other courses and for your future careers. To allow a firm grasp of often abstract economic intuitions, you shall expect to see rigorous, often mathematical, notations and reasonings in the classes. Do not bewilder yourself by symbols and mathematical expressions. Mathematics is a way of communicating, being used to describe, to illustrate, to interpret, to predict, and to explain. What are the objects that need to be described, to be illustrated, to be interpreted, to be predicted, or to be explained? Shall you not have answers to these questions, mathematics is “useless”!

Class Materials

- Required textbook: “*Microeconomic Analysis*”, third edition, Hal R. Varian, W.W. Norton & Company, 1992
- To build up a systematic introduction to the important topics in microeconomics, I decided to use the textbook by Varian (1992). It has been around for some time, and still being used in many advanced microeconomics classes. There are two other popular textbooks available for microeconomics at the graduate level, “*Microeconomic Theory*”, by Mas-Colell/Whinston/Green (1995, Oxford University Press), and “*Advanced Microeconomic Theory*”, by Reny/Jehle (2000, Addison-Wesley). Both are excellent textbooks, nevertheless, the former is too “big” a book for an one-semester course, and the latter is a bit selective.

Course Requirements

(You should have expected that I will push you hard on this course, and you shall work hard.)

- Exams (85%): There will be two mid-term exams and one final. Each of the mid-term counts for 25% of your final score; the final exam counts for 35%. Wakamori-san will participate actively in writing the exam problems. You have to answer the exam problems in English.
- Homework (HW, 15%): Problem sets will be assigned approximately weekly. Please hand in your homework to Wakamori-san before noon (12:00) on Monday. Problem sets will not be graded, but Wakamori-san will go through them to make sure that you finish the homework and hand it in. *The only real way to learn theory is to struggle with solving problems so I strongly encourage you to do the problem sets yourself.* You should consider problem sets as a weekly self-checking device to make sure that things are “on the track”. You do not have to write homework in English, but it is a good way to practice the exam writing.
- Attendance: This course is intensive and demanding. It is difficult to keep up with the pace and learn the materials yourself without attending the class. I strongly recommend you to attend each lecture (whether it is the Wakamori-san’s or mine).

Lecture Outline

We have 27 instructor sessions plus 14 TA sessions. Most of the TA sessions will be used to solve problem sets. Special topics and exam problem reviews will also be taught in the TA sessions. As to the instructor sessions, taking away 3 exams, there are 24 lectures. Roughly,

each lecture covers one topic. The topics are organized according to the structure laid out in the required textbook:

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|-------------------------|-----------------------------|
| 1. Technology | 13. Competitive Markets |
| 2. Profit Maximization | 14. Monopoly |
| 3. Profit Function | 15. Game Theory - I |
| 4. Cost Minimization | 16. Game Theory - II |
| 5. Cost Function | 17. Oligopoly |
| 6. Duality | 18. Exchange and Production |
| 7. Utility Maximization | 19. Time |
| 8. Choice | 20. Asset Markets |
| 9. Demand | 21. Welfare |
| 10. Consumer Surplus | 22. Public Goods |
| 11. Uncertainty | 23. Externalities |
| 12. Econometrics | 24. Information |

Production theory and consumer theory are the building blocks of modern microeconomics. The first six topics (1-6) cover the production theory. The following five topics (7-11) deal with the consumer theory. After touching base with some econometrics (12), we move on to study markets. Issues in competitive and monopolistic markets (13 and 14) will be discussed. Some equilibrium concepts in game theory will be introduced (15 and 16) before we look into oligopolistic markets (17). In a simple general equilibrium framework, we talk about Walrasian equilibrium and welfare theorems (18). More on welfare economics will be discussed later (21). Issues with intertemporal preference and asset markets are introduced in 19 and 20 respectively. The last three topics (22, 23, and 24) deal with market failure.

Calendar

April 6*	1+HW	May 16	9	June 15*	17+HW
April 11	2	May 18*	10+HW	June 20	18
April 13*	3+HW	May 23	11	June 22*	19+HW
April 18	4	May 25*	12+HW	June 27	20
April 20*	5+HW	May 30	13	June 29*	21+HW
April 25	6	June 1*	14	July 4	22
April 27*	7	June 6	2 nd midterm	July 6*	23+HW
May 9	1 st midterm	June 8*	15+HW	July 11	24
May 11*	8+HW	June 13	16	July 13*	final exam

Note: The *'s denote Wednesdays when the TA sessions are held.