

Economics 612, Advanced Microeconomic Theory (II)

Fall Semester 2009

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1 Objective

This course is the second course of advanced microeconomics sequence for Ph.D. students.

It covers general equilibrium theory, welfare economics, the theory of public goods, and an introduction to game theory.

The purpose of this course is to get a deeper understanding of the *foundations* of microeconomic topics, most of which the student has encountered in some capacity in an earlier course. We seek to clarify the underpinnings of these concepts and, to a lesser extent, how they are used in economic research and applications.

Please read through this syllabus, and take a close look in particular at **the schedule** for a sense of how the class will proceed.

2 Reading & Lectures/Discussion

The texts for this course are:

Main Text: Microeconomic Analysis by H. R. Varian. W. W. Norton; 3rd edition (March 19, 1992)

Supplementary Texts: Microeconomic Theory by Andreu Mas-Colell, Michael Whinston, and Jerry Green. Oxford University Press, USA (June 12, 1995)

Varian is an accessible text for these topics, and you've been using it for earlier coursework. I strongly recommend getting Mas-Colell (MWG) as a reference guide however. I think Varian is good to *learn* from, but Mas-Colell is superior as a reference tool.

3 Course Requirements and Grading

There will be two components to the grades in this course:

3.1 Homework Assignments

There will be short, occasional **homework assignments** throughout the semester. I will post the homework assignments on the website, and email and notify you in class when they are available. Homework assignments will be 20% of the final grade, and will all count equally.

In general, I will post the homework on Thursday and it will be due the following thursday. Since my office hours are on wednesday, this gives you ample time to try the homework assignment, and then come to me with questions about it. I strongly encourage you to make use of my office hours in that manner. (In fact, I encourage you to come to my office hours even if you do not have questions, since there may be others with questions that you can learn from.)

I encourage you to work in groups on the homework assignments. I think that is an effective way to learn this material, and one of the most effective ways that I learned the material. If you work in a group, put the names of the people you worked with on the top of your homework.

The grading of the homework will be: (X, check-minus, check, check-plus.)

3.2 Two Examinations

There are **two examinations**: there will be a **midterm** in class in the middle of the semester. The time for the final follows the time designated by Binghamton.

The final will be cumulative, with a emphasis on the second half of the course.

The **midterm** will be worth 35% and the **final** will be worth 45% of your final grade.

The best indicator of the type of questions that are on these exams is the homework.

Needless to say, unlike the homework assignments, the exams are your own work.

3.3 Course Requirements Summary

Homework Assignments:	20%
Midterm:	35%
Final Exam:	45%

4 Schedule

- **Topic 1.** General Equilibrium of an Exchange Economy (*2 weeks*)
 - Existence of the Walrasian Equilibrium
 - Two Theorems of Welfare Economics in Exchange Economy
- **Topic 2.** General Equilibrium in an Economy with Production (*1 week*)
 - The Walrasian Equilibrium in the Economy with Production
 - Two Welfare Theorems in the Extended Economy
- **Topic 3.** Applications of General Equilibrium Theories (*2 weeks*)
 - Tax Incidence Analysis
 - The Theories of the Second Best
- **Topic 4.** Properties of Walrasian Equilibrium (*1 week*)
 - Conditions for the Uniqueness of WE
 - Dynamics of the WE
 - “The Core”
- **Topic 5.** Intertemporal Equilibrium (*1 week*)
 - Time Preference
 - Finite vs. Infinite Time Horizon
 - General Equilibrium over Time
- [Midterm approximately here]
- **Topic 6.** Welfare Economics (*2 weeks*)
 - Normative vs. positive economics
 - Social choice theory and social welfare function
 - Welfare measurements
 - Index theories
- **Topic 7.** Public Goods (*2 weeks*)
 - Examples of Public Good
 - The Samuelson Rule
 - The Lindahl Equilibrium
- **Topic 8.** Externalities (*1 week*)
 - Examples of Market Failure
 - The Coase Theorem and Property Rights
 - Efficiency Conditions for Providing Externalities
- **Topic 9.** Other Forms of Market Failures (*2 weeks*)
 - Monopoly
 - Oligopoly