

Syllabus
(ECON 604 – Part I)
Spring 2011

MICROECONOMIC THEORY– GENERAL EQUILIBRIUM

Course Description:

Economics 604 is the second semester of the Economics Department's two-semester core sequence in *Microeconomics*. This course is taken by all first-year Economics Ph.D. students, as well as by quite a few Ph.D. students in Agricultural & Resource Economics, the Smith School of Business, and other academic departments. The first half of the semester is general equilibrium. Professor Daniel Vincent will be teaching the second of the semester.

Instructor: Erkut Ozbay

Email: ozbay@umd.edu

Office: TYD 4101B

Office Hours: T TH: 12:30pm – 1:30pm (by appointment)

Lectures: Section 0201 T TH 11:00 am – 12:15 pm (TYD 2110)

Section 0101 T TH 2:00 – 3:15 pm (TYD 0101)

TA: Sushant Acharya

Email: acharya@econ.umd.edu

Discussion: F 12:00pm – 1:45 pm (TYD 2106)

Course Objectives:

By the end of the quarter, each student should be able to know:

- the concepts (definitions and theorems)
- the assumptions (what would happen if these assumptions are relaxed?)
- the proof techniques
- the applications

Course Website:

All official course announcements will be posted on the course website: <http://elms.umd.edu>. If you are registered for this course, you can use your directory ID and password to access the website.

Suggested Textbook:

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

(JR) Jehle and Reny, *Advanced Microeconomic Theory*, Addison Wesley, 2000.

Other useful Textbooks:

Debreu, Gerard. *Theory of Value*, Yale, 1959.

Varian, Hal R. *Microeconomic Analysis*, Norton, 1992.

Starr, Ross. *General Equilibrium Theory: An Introduction*, Cambridge, 1997.

Simon, Carl P. and Lawrence Blume, *Mathematics for Economists*, New York: W.W.Norton, 1994.

Problem Sets:

Problem sets will be regularly posted in the course website. They are to be handed in at your discussion session on the date due. Problem sets will not be graded, but they will be a good measure for keeping track of your performance in the class.

Expectations of Students:

You are expected to attend lecture and discussion section regularly, fully utilize the text book and other course materials, complete problem sets on time, and every week check the course website for updated information. You should ask questions, articulate your ideas and concerns out loud, and if you find that you can't follow the logic of lectures, please visit office hours. Not all material from the text will be covered on the exams; in contrast, all material covered in lectures and discussion sections should be considered "testable".

Midterm:

The midterm is scheduled for **March 17** in class.

Outline:

- Pure Exchange Economy (MWG, Ch. 15)
 - The Edgeworth Box (MWG, 15B)
 - Competitive Equilibrium
 - Pareto Optimality
 - One Consumer – One Producer Economy (MWG, 15C)
- Private Ownership, Private Goods Economy – General Framework (MWG, Ch. 16 & 17)
 - The Basic Model and Definitions (MWG, 16B)
 - Pareto Optimality (MWG, 16E & 16F)
 - Competitive Equilibrium
 - The First Welfare Theorem (MWG, 16C)
 - The Second Welfare Theorem (MWG, 16D)
 - Existence (MWG, Ch 17C)
 - Uniqueness (MWG, Ch 17D)
- Externalities (MWG, Ch 11)
 - Altruistic Agents
 - Ad Valorem Taxes (Closed and Open Economies)
- Public Goods (MWG, Ch 11C)
- State Contingent Markets (MWG, Ch 19)
 - Arrow Securities and Assets (MWG, Ch 19B)
 - Arrow Debreu Equilibrium for Exchange Economies (MWG, Ch 19C)
 - Radner Equilibrium (MWG, Ch 19E)
 - Incomplete Markets (MWG, Ch 19F)

Syllabus for Economics 604 (second half) Daniel R. Vincent: Spring 2011

Announcement.

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Official Matters

Economics 604(B) is the second half of the second course in Economics Department's two-semester core sequence in *Microeconomics*. This course is taken by all first-year Economics Ph.D. students, as well as by quite a few Ph.D. students in Agricultural & Resource Economics, the Smith School of Business, and other academic departments. This course covers decisions under uncertainty, expected utility theory, and the economics with private information including mechanism design, adverse selection and moral hazard.

All official course announcements will be posted **HERE**:

Announcements:

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Course Material

Lecture slides, problem sets, and old tests (where available) will be posted on a password-protected area:

<http://econ-server.umd.edu/~vincent/econ604/lect.html>

<http://econ-server.umd.edu/~vincent/econ604/ps.html>

<http://econ-server.umd.edu/~vincent/econ604/test.html>

The login and password for the restricted area will be announced in class.

Grading

The course grade will be determined by the performance on the final exam.

There will be about 5 ungraded problem sets for the second half of the course. For your reference, all of the problem sets from last year are currently posted on the password-protected web page, but some of these may be updated, and you should refer to the most recent version at the time of doing the problem sets.

I hope to schedule the final exam for both the morning and afternoon sections for the same day to be announced. Any students having any known conflicts with either exam time should notify the professor *immediately*.

Texts

A. Mas-Colell, M. Whinston and J. Green (henceforth MWG),
Microeconomic Theory, Oxford Univ. Press, 1995.

Course Times

Section 0201: Tuesdays/Thursdays 11:00 am - 12:15 pm, Tydings 2110

Section 0101: Tuesdays/Thursdays 2:00 pm - 3:15 pm, Tydings 0101

Discussion Section: Fridays 12 noon - 2:30 pm, Tydings 2111

Teaching Assistant: Sushant Acharya 405-3528: <mailto:acharya@econ.umd.edu>

Office Hours

Professor Vincent's Office Hours: Thursdays, 9:45 - 11:00 am, Tydings 4130B

Sushant Acharya Office Hours: Tydings 3115M

Topics for Second Half of Course (approximately one week per topic)

1. Decision Under Uncertainty: Expected Utility, I and II.

MWG, Chapter 6A and 6B.

<http://econ-server.umd.edu/~vincent/econ604/leceu1.pdf>

<http://econ-server.umd.edu/~vincent/econ604/leceu2.pdf>

2. Decision Under Uncertainty: Attitudes Toward Risk, I through IV.

MWG, Chapter 6C and 6D.

<http://econ-server.umd.edu/~vincent/econ604/lecra1.pdf>

<http://econ-server.umd.edu/~vincent/econ604/lecra2.pdf>

<http://econ-server.umd.edu/~vincent/econ604/lecra3.pdf>

<http://econ-server.umd.edu/~vincent/econ604/lecra4.pdf>

3. Decision Under Uncertainty: The Value of Information.

MWG, Chapter 19H.

<http://econ-server.umd.edu/~vincent/econ604/lecinf1.pdf>

4. Implementation: The Mechanism Design Approach

MWG Chapter 23E-F.

<http://econ-server.umd.edu/~vincent/econ604/lecmd1.pdf>

5. Adverse Selection Problems

MWG Chapter 13.

<http://econ-server.umd.edu/~vincent/econ604/lecmd2.pdf>

6. Moral Hazard (Principal Agent) Problems.

MWG Chapter 14.

<http://econ-server.umd.edu/~vincent/econ604/lecmd3.pdf>

7. Review

<http://econ-server.umd.edu/~vincent/econ604/lecrev.pdf>