Economics 601                  Syllabus
Microeconomic Analysis I     Fall 2013

Instructor:    Harvey Lapan     283 Heady Hall (294-5917)  hlapan@iastate.edu
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Classes:       Lectures    Monday and Wednesday, 9:00 am - 10:50 am   272 Heady Hall
                Lab         Friday, 3:10 pm – 5:00 pm           272 Heady Hall

Office hours:  Lapan:      Mon. and Wed., 1:30 pm – 3:00 pm; feel free to come by other times
                Sinitskaya: Wed. & Thurs., 3:00-4:30 pm

Web page:      http://www.econ.iastate.edu/classes/econ601/lapan

Disability Statement

If you have a documented disability and anticipate needing accommodations in this
course, please make arrangements to meet with me soon. Please request that a Disability
Resources staff send a SAAR form verifying your disability and specifying the accommodation
you will need.

Course description

This is the first of two required Ph.D. core theory courses in microeconomics. The objective is to
introduce the students to the standard problems of microeconomics, and to develop concepts and
skills useful for advanced analysis in all areas of economics. The course will emphasize single-
agent optimization problems, including decisions under uncertainty, but will also provide an
introduction to aggregation issues and partial equilibrium analysis.

Prerequisites

This course presumes knowledge of intermediate microeconomics, as well as basic mathematical
skills suited for graduate work in economics (in particular, students should be proficient on the
topics covered in the “Math Camp” offered in the first two weeks of August). The material covered
in the first part of Economics 600 is also particularly useful for this course.

Homework

Problem sets will be assigned each week and posted on the course web page. You are expected to
work through all of the problems and to turn in your answers to Kate’s mailbox by 4:30 pm on
Thursday. You may work with other people on the problem sets but you must write up the
answers to the problem sets yourselves. Your problem sets will count for 10% of your grade. The
problem sets will be discussed at the Friday discussion section, which you should attend.
Grades: 10% homework (problem sets and lab sessions)
50% 2 midterm exams – (25% each) – dates to be determined
40% final exam – finals week, date/time to be determined by University

Required textbook


Recommended textbook


Other useful books

Graduate microeconomics:

Mathematical economics:

Note: These books are available in “Reserve” in the main library.

**DETAILED OUTLINE AND SUGGESTED READINGS**

**Part 1: Consumer Theory**


Jehle and Reny (2001), pp. 3-60.
**Duality.** Hyperplanes and halfspaces. Separating and supporting hyperplane theorems. Duality results for the expenditure function and the at-least-as-good set. Sufficient conditions for an expenditure function. Recovering the direct utility function from an expenditure function and from an indirect utility function.

Varian (1992), pp. 81-91 and pp. 129-131


**Part 2: Producer Theory**


Varian (1992), chapter 1 (pp. 1-20).


Mas-Colell, Whinston, and Green (1995), chapter 5 (pp. 139-147)
Jehle and Reny (2001), pp. 135-144.
Varian (1992), chapter 4 (pp. 49-61, 64-77, pp. 81-93)
**Profit Maximization and the Profit Function.** The profit maximization problem. Unconstrained optimization applied to II maximization. FONCs for interior and corner solutions. SOCs and curvature. Input demands and output supply. Properties of input demand and output supply functions. Comparative statics using FOCs. Definition and properties of the profit function. Hotelling's Lemma and the Envelope Theorem. Comparative statics with the profit function. Efficiency and profit maximization.

Mas-Colell, Whinston, and Green (1995), chapter 5 (pp. 135-139 and 149-152).
Varian (1992), chapter 3 (pp. 23-35 and 40-47).

**Part 3: Partial Equilibrium**


Varian (1992), chapter 14.

**Part 4: Uncertainty and Risk Aversion**


Mas-Colell, Whinston, and Green (1995), chapter 6 (pp. 167-194).

**Selected Applications.** A simple insurance model. A simple portfolio model. Comparative statics in the simple portfolio model: the effects of initial wealth and risk attitudes (decreasing absolute risk aversion; decreasing relative risk aversion). The theory of the firm under price uncertainty.* Quadratic, CARA, and CRRA utility functions. CARA utility and the linear mean-variance model.* Comparison of payoff distributions and stochastic dominance.*


Note: topics labeled with the * symbol will be covered explicitly if time allows.