## INTERMEDIATE MICROECONOMIC THEORY
## CLASS INFORMATION, REQUIREMENTS AND OUTLINE

### Professor Michael Hazilla

**Required Text**

- Varian, H. R. *Intermediate Microeconomics - A Modern Approach* (Norton, 2006)

**Administrative**

- Class Hours : Tuesday/Friday
- Office : Roper Hall 123
- Telephone : Work 202 885-3148 and Home 301 528-5377
- Office Hours : TBA and By Appointment
- E-mail : Not Applicable

**Course Objectives** The purpose of this course is to provide an analytic introduction to intermediate microeconomic theory. The course focuses on conceptual foundations of microeconomics: prices, markets, optimization, equilibrium and comparative statics. We will study how consumers and firms interact in economic markets and learn how economic decisions are made using models developed in the lectures. We will discuss how the consumer allocates a fixed amount of income to maximize economic well-being as both an intra-temporal and inter-temporal economic decision problem. In addition, we will develop the theory of the firm starting from a description of the technology and continuing with the study of the economic decision problem under cost minimization and profit maximization and finishing with the derivation of the firm and industry supply curves in perfectly competitive markets. The course is very analytical but not excessively mathematical. Analytic problems are drawn from the theory of consumer choice and the theory of the firm. Our analytic approach to microeconomics is one that uses rigorous and logical reasoning but only simple algebra, some calculus, and graphical analysis.

As microeconomics may be broadly defined as a way of thinking about problems concerned with resource allocation, this class will develop tools necessary for the analysis of, and economic solution to, problems facing decision-makers. Our analysis will focus on economic agent behavior associated with consumers and firms. While many specific theoretical tools will be developed in this class, emphasis will also be placed on applications derived from questions and problems facing consumers (utility maximization and choice under uncertainty with risky assets) and firms (cost minimization or profit maximization). Review problems are fundamental for the course. You will need to work many

interesting and instructive problems in preparation for the exams. The review problems contain much of the material upon which the examinations will be based.

**Course Requirements and Grading** The course assumes working knowledge of algebra and geometry with Principles of Microeconomics serving as a prerequisite. *Calculus* will be introduced and used at various times throughout the class. Economics students should know calculus and we will cover Varian's *Mathematical Appendix* from time to time during the lectures. *Calculus is presented for students interested in learning about the modern approach to economics which is indisputably mathematical.* The mathematical approach does not differ in any fundamental way from non-mathematical approaches but the mathematical approach is more clear and precise inasmuch as we need to state clearly our assumptions before using the language of mathematics and building economic models. Everyone should think about learning the elementary calculus used in the course.

Grades will be based on three examinations. There are two in-class closed-book exams and one take-home final. Studying together is encouraged, but under no circumstances should problems be done with assistance from others, regardless of whether they are on or off the class roster. Your grade will be based on

- Exam 1 : 35 Points [Exam 1a on October 10 (Friday) and Exam 1b on October 14 (Tuesday)]

- Exam 2 : 35 Points [Exam 2a on November 11 (Tuesday) and Exam 2b on November 14 (Friday)]

- Final Exam : 30 Points (December 12, Friday)

- Student Conduct : 20 Points

Please note the problem sets are highly recommended; studying together as mentioned above is encouraged, but again under no circumstances should the problems be done with assistance from others, regardless of whether they are on or off the class roster. If you have any questions then please let me know. Students should be adequately prepared for these exams by doing the review problem sets. I will schedule review classes to insure adequate understanding of test material.

You should be aware at the outset of this course that I do not give the grade incomplete. I assume that when you receive this syllabus it gives you the rules and you can plan your time accordingly. Failure to complete course requirements means that you fail whatever part you did not finish. The failure is then included in your grade as the above weighing scheme implies. There are no makeup exams. Medical excuses from the University Health Services are not acceptable. All exams and review exercises are problem oriented and will emphasize your problem solving ability. If you have any questions then please let me know. Lecture notes or notes of any kind and Varian's *Intermediate Microeconomics* can not be used during exams. Students should be adequately prepared for these exams by attending lectures and doing the problem sets and doing the readings.

**Analytic Review Problem Sets** Analytical review problem sets required for the course are taken from the Varian's *Intermediate Microeconomics* and past examinations. Learning-By-Doing is an important part of the practice of microeconomics. It is the consensus of many practitioners of the art that algebraic problems are a highly effective educational tool. Some of the problems are relatively easy, while others will require considerable thought. The more difficult problems are worth the effort since they ensure your mastery of microeconomics. Many problems have appeared on previous examinations. You should work all review problems as assigned in class. Please note that review problems are highly recommended.

All problem sets should be completed according to the dates for exams mentioned in class; though these dates might be considered target deadlines, that may change depending on my anticipations of the pace we will set in covering the material, I do not imagine any significant changes in the schedule.

Also work Varian text problems appearing at the end of each assigned chapter carefully and check where possible that you have arrived at the correct solution. Varian gives many answers in the book. Be sure you can give a complete description of the problem and include a discussion of the economic content of the problem. All details for solving the problem should be given with your answer. Be sure to work logically through each problem and identify the basic steps associated with arriving at the solution. Start each problem at the top of a new page! Finally, please ask for assistance at any time if you are having trouble with the assignment. Obviously, it is not a good idea to wait until a few days before the examination, rather you should review the assignment immediately and begin working solutions to the problem set so that you can effectively prepare for the examinations.

**Student Conduct** Rules for student conduct are as follows. Eating in class is **not** allowed. Students are to arrive for lectures on time. Students are **not** to leave before the lecture is completed. **Loud** talking during lectures is **not** allowed. No cell phones. If a student is late to a lecture or leaves a lecture early, then Professor Hazilla will request a note from the student acknowledging their action. Similarly, if Professor Hazilla needs to stop a lecture for loud talking, then Professor will again request a note from the student acknowledging their talking during the lecture.

Student conduct is used in computing your grade in this course. Every student automatically gets full credit for good conduct which amounts to 10% of the grade. Students who have not practiced good conduct, get 0% rather than 10% and the zero percent is used in the computation of the final grade. Class attendance is **not** required.

**Academic Honesty** Academic Honesty is essential in this class. The *Academic Integrity Code* is at the foundation of your education. I remind you that all work turned in is expected to be your own. You may collaborate with others, but work assigned as Examination Review Problem Sets may be collaborative *only* to the extent of discussing the general problem and approach. Solutions, written discussion, and analysis must be your own. If I find evidence that cheating or plagiarism has occurred, then I will turn the evidence over to the College of Arts and Sciences. The penalties for plagiarism and cheating include dismissal from the University, dismissal from the College and failure in Intermediate Price Theory. An explanation concerning **Academic Dishonesty** is appended to the student's transcripts.

**Schedule of Lectures and Exams - Intermediate Microeconomics (Fall 2008)**

## Mathematics Review

**Week 1** Review - Quiz 1

**Week 2** Mathematics Review

**Week 3** Introduction to the Calculus - Univariate and Bivariate

## Consumer Choice

**Week 4** Budget Constraint Preferences and Utility

**Week 5** Consumer Choice and Individual Demand

**Week 6** Slutsky Equation and Comparative Static Analysis

**Week 7** Review and **Exam 1a** (Friday October 10)

**Week 8** **Exam 1b** (Tuesday October 14 / No Class October 17 – Fall Break)

**Week 9** Inter–temporal Choice and Uncertainty [?]

**Week 10** Technology and Profit Maximization

## Theory of the Firm

**Week 11** Technology and Profit Maximization

**Week 12** **Exam 2a** (Tuesday November 11) and **Exam 2b** (Friday November 14)

**Week 13** Cost Minimization and Cost Functions

**Week 14** **Thanksgiving Week – No Classes**

**Week 15** Firm Supply

**Week 16** Final Exam Due December 12 (Friday)