

**University of Wisconsin
Department of Economics
Economics 311: Intermediate Microeconomic Theory – Advanced Treatment
Fall 2010**

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Class Location : 122 Ingraham,
Class Time TR 11:00-12:15

COURSE DESCRIPTION

This course introduces students to the major analytical and theoretical tools necessary for an advanced study of Microeconomics. It builds a bridge between the concepts introduced in Econ 101 (or Econ 111) and those which will be covered in the more advanced economics courses like International Trade, Public Finance, Industrial Organization, Labor Economics, Health Economics, etc. The emphasis will be on a rigorous development of theory using graphical analysis and multivariate calculus. The prerequisites for this course are any two introductory economics courses, and Math 221 and Math 222. Math 222 can be taken concurrently, but the other classes need to have been completed in earlier semesters. Students should feel quite comfortable with multivariate calculus as it will be needed to develop the optimization theory that will be used in this course. In particular students should be comfortable with Lagrange multiplier techniques used in constrained optimization problems and it would even be a good idea to have some idea of what the Kuhn-Tucker theorem is.

In this course we will explore how economists form and study microeconomic models to understand household and firm behavior. We will examine the virtues of a perfectly functioning marketplace, but we will also analyze possible imperfections in the market. The theory will be applied to policy issues, e.g. anti-trust policy, design of regulatory systems, environmental regulation, etc. The class is designed for honors students and other students who are strong in Mathematics and have excellent analytical skills.

TEACHING FORMAT

Since this course is an honors course we will give a rigorous course geared towards a “pre-graduate student” level. Most of our weekly meetings will be lectures that teach rigorous modeling techniques of microeconomic theory but also with a strong policy application emphasis that will exploit my many years in the policy consulting business. .

COURSE REQUIREMENTS

1. First Midterm Examination, **OCTOBER 5** (30% of grade).
In class, covers chapters 1-9.

2. Second Midterm Examination, NOVEMBER 4 (30% of grade).

In class, covers chapters 10-21

3. Final Examination, 2:45-4:45 pm, Tuesday. DECEMBER 21 according to current Time Table (40% of grade).

Covers all material Chapters 1-37.

There will be **no make up exams**. We will average the exams (with slightly more weight on the final) you do take for your course grade. Here is an important remark on grading policy and partial credit assignment for the course: We wish to be able to give partial credit on each exam question rather than simply "right or wrong." Each exam is read twice before the partial credit assignment is made. Hence, in order to protect "nonaggressive" students who tend to accept their partial credit assignments without argument, we will not change partial credit assignments after exams are handed back to students. However, check the addition on your exams immediately. We will correct addition errors if you give us the exam when you are leaving class on the day that the exams are handed out.

Required Text:

Hal R. Varian, Intermediate Microeconomics, W.W. Norton & Company, 8th edition, 2010.

The 7th edition is acceptable, but if you buy a new book, please buy the 8th.

You can find copies of this book at the bookstore. You will definitely need to purchase a copy of either the 8th edition (if you buy a new book) or the 7th edition (if you buy a used book). There should be copies of the 7th edition around on the "used book market" since this book was used for Economics 311 in Fall 2008, 2009 and other recent times. I might add that the 7th edition is quite close to the 8th. The main advantage of the 8th is that more of the examples are more recent ones than the 7th edition and there is more material on mechanism design. But we will not have much time to do mechanism design and I will use recent examples anyway. So, do not worry if you want to save money by buying a used 7th edition rather than a new 8th edition. If you compare the two books you will see that they are very similar for what we will be able to cover in 311. Also look at the syllabus below where I point out where the minor differences are for what we will be able to cover in 311.

The course outline that follows gives the chapters in Varian that correspond to the lectures. You are responsible for this material and are expected to always come to class prepared. There's nothing like economic policy issues to get people riled up for a good class discussion! But you will not get much enjoyment out of it if you are not prepared when you come to class.

We will use the web a lot besides the textbook. For this reason and in order to reserve time for web-based research I will just use the textbook by Varian for the textbook part of the course.

Econ 311 is a problem solving class. There will be several problem sets given out throughout the semester that have been constructed carefully and serve as an excellent practice for the exams. You are strongly encouraged to work together with classmates when solving these problem set questions, but complete and turn in **your own if we ask you to hand them in**. Students who are regular members of study groups do significantly better in economics classes and also have enjoyed the process more. No late problem sets will be accepted if and when we ask you to turn them in.

COURSE OUTLINE

THE MARKET – DEMAND AND SUPPLY (Sept. 2)

Chapter 1

BUDGET CONSTRAINT (Sept. 7)

Chapter 2

PREFERENCES & UTILITY (Sept. 9,14)

Chapters 3, 4

UTILITY MAXIMIZATION AND CHOICE (Sept. 16)

Chapter 5

THE DEMAND CURVE (Sept. 21)

Chapter 6

REVEALED PREFERENCES - INCOME & SUBSTITUTION EFFECTS (Sept. 23, 28, 30)

Chapters 7, 8, 9

FIRST MIDTERM EXAMINATION, IN CLASS, OCTOBER 5

UNCERTAINTY AND RISK (Oct. 7,12)

Chapters 12, 13, 14. Some of Chapters 10,11. The 8th edition adds a new copyright example on page 197 and adds a few paragraphs on bubbles, counterparty risk, value at risk, on pages 209, 243, and 247. Up to this point the 7th and 8th are basically the same.

MARKET DEMAND AND ELASTICITY (Oct. 14)

Chapter 15

EQUILIBRIUM IN A COMPETITIVE MARKET AND TAXES (Oct. 19)

Chapter 16

PRODUCTION AND TECHNOLOGY (Oct. 21)

Chapter 18

PROFIT MAXIMIZATION (Oct. 26)

Chapter 19

COST MINIMIZATION (Oct. 28)

Chapter 20

COST CURVES (Nov. 2)

Chapter 21

SECOND MIDTERM EXAMINATION, IN CLASS, NOVEMBER 4

FIRM SUPPLY (Nov. 9)

Chapter 22

INDUSTRY SUPPLY (Nov. 11)

Chapter 23. The 8th has an additional example of a carbon tax versus cap and trade on pages 433-436. I will teach this in class in such a way that owners of 7th are not disadvantaged relative to owners of the 8th..

MONOPOLY (Nov. 16)

Chapter 24

PRICE DISCRIMINATION & MONOPOLISTIC COMPETITION (Nov. 18)

Chapter 25, 26

OLIGOPOLY (Nov. 23)

Chapter 27

November 25, Thanksgiving Day

A BIT OF GAME THEORY AND BEHAVIORAL ECONOMICS (Nov. 30)

Chapters 28, 29, 30

EXCHANGE AND GENERAL EQUILIBRIUM (Dec.2)

Chapter 31, 32

WELFARE AND EXTERNALITIES (Dec. 7)

Chapter 33,34.

INFORMATION TECHNOLOGY AND PUBLIC GOODS (Dec. 9)

Chapter 35,36. Until here the 7th and 8th are basically the same with the small exceptions mentioned above. The 8th adds an example of iPod and iTunes and AdWords and AdSense on pages 672-674, Radio Ads on page 685, Two Sides Markets (example: Blu-ray DVDs) on page 686, a cool picture of two sided market dynamics on page 688. There is more on the Vickrey, Groves, Clark mechanism in the 8th. If we have time to teach this extra material from the 8th I will do it so that owners of 7th's are not disadvantaged.

ASYMMETRIC INFORMATION (Dec 14)

Chapter 37

FINAL EXAM (covers whole course) December 21, 2:45-4:45 P.M. (according to current Time Table)

Misconduct Statement

Academic Integrity is critical to maintaining fair and knowledge based learning at UW Madison. Academic dishonesty is a serious violation: it undermines the bonds of trust and honesty between members of our academic community, degrades the value of your degree and defrauds those who may eventually depend upon your knowledge and integrity.

Examples of academic misconduct include, but are not limited to: cheating on an examination (copying from another student's paper, referring to materials on the exam other than those explicitly permitted, continuing to work on an exam after the time has expired, turning in an exam for regrading after making changes to the exam), copying the homework of someone else, submitting for credit work done by someone else, stealing examinations or course materials, tampering with the grade records or with another student's work, or knowingly and intentionally assisting another student in any of the above.

The Dept. of Economics will deal with these offenses harshly following UWS14 procedures (<http://students.wisc.edu/saja/misconduct/UWS14.html>):

1. The penalty for misconduct in most cases will be removal from the course and a failing grade,
2. The department will inform the Dean of Students as required and additional sanctions may be applied.
3. The department will keep an internal record of misconduct incidents. This information will be made available to teaching faculty writing recommendation letters and to admission offices of the School of Business and Engineering.

If you think you see incidents of misconduct, you should tell your instructor about them, in which case they will take appropriate action and protect your identity. You could also choose to contact our administrator (Mary Beth Ellis: mellis@ssc.wisc.edu) and your identity will be kept confidential.