MICROECONOMICS  
C30.0001.05  
SPRING 2010  
TR 9:30-10:45 Tisch LC-25  

Course Instructor: Professor Allan Collard-Wexler  
Office Hours: Tuesday 2:00-3:00  
Office: KMC 7-80  
E-mail address: wexler@stern.nyu.edu.

Teaching Assistants:

T.A.: Bernardo Santos da Silveira (bss288@nyu.edu)  
T.A. Section: Monday 03:30pm-4:45pm in UC11

T.A.: Mark Gillis (markgillis0@gmail.com)  
T.A. Section: Wednesday 3:30pm-4:45pm in UC11

T.A.: Flavio Campos (fsc227@nyu.edu)  
T.A. Section: Monday 2:00pm-3:15pm in UC11

T.A.: Ying Lei (yl696@nyu.edu)  
T.A. Section: Tuesday 8:00am-9:15am in UC-01

T.A.: Sen Geng (sen.geng@nyu.edu)  
T.A. Section: Thursday 8:00am-9:15am in UC-01

T.A.: Sen Geng (sen.geng@nyu.edu)  
T.A. Section: Thursday 3:30pm-4:45pm in UC-01

Course Description

Economics is the study of production and allocation of scarce resources, and how agents make decisions under conditions of scarcity and uncertainty. This course provides a rigorous introduction to economics, with special emphasis on microeconomics. It will introduce you to economics as a discipline and as a way of thinking. It will also provide you with a set of tools, which will be very useful in other economics courses.

We will first study the behavior of individual consumers and firms. Then we will give you some insight into how markets work and whether market outcomes are desirable. We will also look at situations in which the firm is a monopolist, or competes with a limited number of rivals. Some of the key concepts we will introduce include economic incentives, marginal analysis, opportunity cost (which costs matter), market efficiency (what does it mean for a market to work) and strategic behavior (how to predict and respond to your rivals’ decisions).
The tools that you will be acquainted with in this class are fundamental for most upper division courses of the Economics major as well as classes in Finance, Accounting and Marketing.

**Textbook:** Robert S. Pindyck, and Daniel L. Rubinfeld: *Microeconomics* (8th Edition), Prentice-Hall Series in Economics. The textbook can be bought at the NYU Bookstore.¹

**Course Blackboard**
The course’s blackboard can be found at [http://sternclasses.nyu.edu](http://sternclasses.nyu.edu) using your Stern netID/password and choosing the course titled Microeconomics.

Please familiarize yourself with the course web site ASAP. There you will be able to find among others:
- Lecture notes
- Problem sets and keys to them
- Sample exams
- Announcements

**Prerequisites:** This course assumes familiarity with multivariate calculus and high school algebra. In addition, we will have a review section on most essential mathematical tools.

**TA’s Sessions:** We meet twice a week and in addition a Teaching Assistant (TA) will conduct a recitation every week. TA sessions start at the SECOND week of classes.

**Homework Assignments:** There will be 10 homework assignments. Homework assignments will consist of problems and short answer questions based on the material presented in class. The objective of these assignments is to give you the opportunity to practice the concepts. TA’s will go over the solutions.

**Quiz:** There will be 2 quizzes. There are absolutely no make-ups for missed quizzes.

**Examinations-Make-up Test Policy:** There will be a midterm and a final exam. Tests are written and will be taken without books or notes. They will consist of problems similar to the ones in the problem sets; short answer questions. The final exam will be cumulative.

**No Make-up Exams:** If you miss the midterm for a justified reason and provide sufficient evidence, your final score will be counted instead of the midterm exam. If you miss the midterm for any other reason you will get a score of 0. If for a justified reason you miss the final exam you will receive an incomplete, which has to be removed in the earliest possible semester.

**Review Sessions:** We will run a review session before the midterm and one before the final.

**Your final exam:** If you want to receive a copy of your final exam after the course is over you will need to make an appointment with me or your TA.

**Errors:** The TA’s and myself will make every effort to grade fairly and evenly. But some errors in grading may occur. Please check your exams and in case of grading errors, please return your exam to the grader with a written note explaining where the error is. We may keep copies of all,

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¹ You can also use previous editions of the textbook or the international edition (see the topics in week 9 on price discrimination) as long as you make sure that you can figure out the sections of the book that we will cover.
or of a fraction of graded exams, prior to handing them back. The whole exam may be regraded in this case. Please keep copies of your exams until the semester is over.

**Grading Policy:** Your grade will be determined by the following

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Problem Sets</td>
<td>20%</td>
</tr>
<tr>
<td>Quiz</td>
<td>10%</td>
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<tr>
<td>Midterm</td>
<td>30%</td>
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<tr>
<td>Final</td>
<td>40%</td>
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I will use the grades A+, A, A-, B+,…, C- but I will only use grade D.

**How to do well in this course:** Practice problems. As many as you can! Work with your friends on the difficult problems. Learn from each other. Seek help from me or from the TA’s. We are here to help you.
Reading List and Tentative Course Schedule

Week 1:

Tuesday Jan 19: Introduction and Preliminaries: what is Economics? The study of how a society uses its limited resources to produce, trade and consume goods and services.
   Sections 1.1, 1.2

Thursday Jan 21: The Basics of Supply and Demand. The demand Curve describes consumers’ choice, while the Supply Curve describes how much firms will produces. Equilibrium of Supply and Demand through price.
   Sections 2.1, 2.2, 2.3, 2.4, 2.5

Week 2:

Tuesday Jan 26: Consumer Behavior (1): preferences and their representation by a utility function. How do consumers make a decision given the alternatives that are available?
   Sections 3.1, 3.2, 3.3, 3.4, 3.5

   Sections 3.1, 3.2, 3.3, 3.4, 3.5

T.A. Section: Math Review on Derivatives and Algebra.

Week 3:


Thur Feb 4: Individual Demand: Study how utility maximizing choice of a good varies as Income Changes (Engel Curve), and as the price of the good itself changes (Demand Curve).
   Sections 4.1, 4.2 page 122, Appendix to Chapter 4 pages 149-155

T.A. Section: Solution to Problem Set 1 on Math Tools and Supply and Demand.

Week 4:

Tuesday Feb 9: Market Demand: add up individual demands to get market demand. Discuss Elasticity of Demand, the responsiveness of demand to price.
   Sections 4.3, 4.6

Tuesday Feb 11: Production Part I: We introduce firms and how they decide to produce. A firm is described by how it can transform inputs such as labor and capital into outputs, which is called a production function. We also discuss marginal versus average product of labor and capital.
   Sections 6.1, 6.2

T.A. Section: Solution to Problem Set 2.
Note: T.A. sections on Monday the 15th have been moved to Friday the 19th from 4:30 to 5:30. Rooms to be announced.
Week 5:

Tuesday Feb 16: Production Part II: Production with two inputs. The tradeoff between using more labor or capital is called the marginal rate of technical substitution. As well we discuss returns to scale, i.e. are larger plants more productive?
   Sections 6.3, 6.4

Thursday Feb 18: The Cost of Production: We discuss the difference between sunk costs and fixed costs and costs in the short run versus the long run.
   Sections 7.1, 7.2, 7.3, 7.4, Appendix 7 pages 264-268.

T.A. Section: Solution to Problem Set 3.

Quiz 1 in class the week of Feb 15

Week 6:

Tuesday Feb 23: Profit Maximization and Competitive Supply. We look at the firm’s decision to produce in a perfectly competitive market. If a firm is maximizing profits, then it sets marginal costs to marginal revenue.
   Sections 8.1, 8.2, 8.3, 8.4, 8.5

Thursday Feb 25: The Analysis of Competitive Markets. We use the tools of Consumer and Producer Surplus to analyze the effect of a tax or rent control on the efficiency of a market.
   Sections 9.1, 9.2, 9.3, 9.6

T.A. Section: Solution to Problem Set 4.

Week 7:

Tuesday March 2: Externalities and Public Goods. In many situations your actions affect others indirectly. Does this affect market efficiency? We will talk about the failure of several fisheries due to the externality problem.
   Sections 18.1, 18.2, 18.6, 18.6,

Thursday March 4: Market Power: Monopoly and Monopsony (I). We analyze firms with market power that do not take the market price as given, but can choose the price of their products.
   Section 10.1 up to page 357


Week 8:

Tuesday March 9: Topics Left Over.

Thursday March 11: Midterm Review Lecture.

T.A. Section: More midterm review questions.

Wednesday March 10: Midterm at 6:30-7:45 PM in one of Paulson Auditorium and KMC 2-60.
Week 9:

Tuesday March 23: Monopoly, Market Power and Antitrust (II): The social cost of monopoly and laws against monopoly: the antitrust laws.
   Sections 10.2, 10.3, 10.4

Thursday March 25: Pricing with Market Power. We look at Price Discrimination, the practice of setting different prices for different types of consumers (such as students discounts or quantity discounts).
   Sections 11.1, 11.2

T.A. Section: Solutions to Problem Set 6.

Week 10:

Tuesday March 30: Choice under Uncertainty. Expected Utility and Risk Preferences. How do we make choices when certain variables such as income and prices are uncertain (making choices with risk)?
   Sections 5.1, 5.2, 5.3

Thursday April 1: Game Theory (I): Simultaneous moves. We examine strategic decision making, when you are interacting with a competitor. We look at dominant strategies and a solution concept called Nash Equilibrium.
   Sections 13.1, 13.2, 13.3

T.A. Section: Solutions to Problem Set 7.

Week 11:

Tuesday April 6: Game Theory II: Games Trees, Commitment & Threats. We look at sequential games in this lecture and the strategic role of commitment and threats.
   Sections 13.5, 13.6, 13.7

Thursday April 8: Monopolistic Competition and Oligopoly. We examine how firms set price or quantity when they have a single competitor (Bertrand and Cournot Competition). Part I
   Section 12.2 up to page 455, 12.3

T.A. Section: Solutions to Problem Set 8.

Week 12:

Tuesday April 13: Monopolistic Competition and Oligopoly. We examine how firms set price or quantity when they have a single competitor (Bertrand and Cournot Competition). Part II
   Sections 12.2 from 455 on
Thursday April 15: Asymmetric Information I: Adverse Selection & Signaling. Frequently a seller or producer knows more about the quality of the product than the buyer does. How does asymmetric information affect economic outcomes?
   Sections 17.1, 17.2


**Quiz 2 in class the week of April 12**

**Week 13:**

Tuesday April 20: Asymmetric Information II: Adverse Selection & Signaling. Frequently a seller or producer knows more about the quality of the product than the buyer does. How does asymmetric information affect economic outcomes?
   Sections 17.3, 17.4

Thursday April 22: Applications of Game Theory: Auctions
   Section 13.8

T.A. Section: Solution to Problem Set 10.

**Week 14:**

Tuesday April 27: Applications of Game Theory on Public Goods, (or topics left over depending on the time we have left)
   Section 18.6

Thursday April 29: Final Review Lecture

T.A. Section: Review of Final Pack.

**Final Exam: Friday May 7 from 10-11:50am. Room to be announced.**
Grading Policy and Description

At Stern, we want to ensure fair and consistent grading across core courses. As such, grades for this course will be distributed following the Stern Grading Guidelines for Core Courses at the Undergraduate College.

25-35% A’s – awarded for excellent work
50-70% B’s – awarded for good or very good work
5-15% C’s (or below) – awarded for adequate or below work

Course Policies

Attendance
- Class attendance is mandatory and part of a student’s grade. Absences may be excused only in the case of documented serious illness, family emergency, religious observance, or civic obligation. If you will miss class for religious observance or civic obligation, you must inform your instructor no later than the first week of class. Recruiting activities are not acceptable reasons for class absence.
- Students are expected to arrive on time and stay to the end of the class period. Chronically arriving late or leaving class early will have an impact on a student’s grade. Students may enter class late only if given permission by the instructor and can do so without disrupting the class. Note: Instructors are not obligated to admit late students or may choose to admit them only at specific times and instructors are not obligated to readmit students who leave class.

Participation
- Participation is an essential part of learning in this course. Students are expected to participate in all facets of classroom learning.

Reading/Homework
- Students are expected to come to class prepared having read text and assigned readings prior to class. Homework, case studies, and other assignments are expected to be completed and handed in on time.

Late Assignments and Make-up Policy
- At the discretion of the professor, late assignments will either not be accepted or will incur a grade penalty unless due to documented serious illness or family emergency. Professors will make exceptions for religious observance or civic obligation only when the assignment cannot reasonably be completed prior to the due date and the student makes arrangements for late submission with the professor in advance.

Classroom Norms
- Laptops, cell phones, Smartphones and other electronic devices are a disturbance to both students and professors. All electronic devices must be turned off prior to the start of each class meeting.

Ethical Guidelines

Student Code of Conduct
- All students are expected to follow the Stern Code of Conduct
A student’s responsibilities include, but are not limited to, the following:

- A duty to acknowledge the work and efforts of others when submitting work as one’s own. Ideas, data, direct quotations, paraphrasing, creative expression, or any other incorporation of the work of others must be clearly referenced.
- A duty to exercise the utmost integrity when preparing for and completing examinations, including an obligation to report any observed violations.

**Students with Disabilities**

- Students whose class performance may be affected due to a disability should notify the professor immediately so that arrangements can be made in consultation with the Henry and Lucy Moses Center for Students with Disabilities [http://www.nyu.edu/csd/](http://www.nyu.edu/csd/) to accommodate their needs.