Principles of Microeconomics
ECON 10011 / 20011
Fall 2006
Professor Amitava Dutt, Decio 420, 6317594, adutt@nd.edu.
Web page: http://www.nd.edu/~adutt/
Tuesdays and Thursdays, 11 to 12.15, De Bartolo 126
Office Hours: Tuesdays and Thursdays, 9.30-10.30 AM and by appointment

1. Course Objective

This course provides an introduction to microeconomics with an emphasis on supply and demand, the consumer, the producer, economic equilibrium, efficiency and equity, market failures, and government intervention in markets.

In this context, the course has three broad objectives.

(1) It is designed to help students to understand basic economic concepts and problems related to the behavior and interaction of individuals. It examines how individuals make decisions, how markets allocate resources through the price mechanism, and problems relating to imperfect competition, externalities (like pollution), common resources, imperfect information, and poverty and inequality.

(2) It is designed to give students a feel for the methods which economists use to understand individual behavior and interactions. It introduces students to a variety of models, including optimizing models of consumer and firm behavior, partial and simple general equilibrium models, and models of imperfect competition.

(3) Finally, it attempts to help students to develop an ability to apply the methods and models in seeking solutions to the economic problems confronting society.

2. Course Structure

The classes will consist of lectures with discussions and quizzes, and student project presentations (group projects).

3. Prerequisites

No background in economics is required. Students are expected to be conversant with (simple) high school algebra and geometry.

4. Course Requirements and Grading

The final grade for each student will be based on:

(i) best two grades in the three examinations during the semester, the dates of which are given in the schedule below (20 points each – total 40 points);
(ii) a comprehensive final examination (30 points); and
(iii) in-classes quizzes (20 points); and
(iv) Home work – Home work advantage – and one short class project - 10 points. Home work problems will be available at: http://bfw.brownstone.net/classes/admicro/

Class project involves choosing one topic of relevance to this course from a newspaper or magazine article and writing a 2-3 pg. report on it using tools developed in this class. Due by December 5 but may be handed in any time – as attachment to email.

Each exam will cover the material taught in the weeks prior to that exam. The final exam will cover the entire course material In-classes quizzes will be held on an almost daily basis, using i-clickers, based on the assigned readings and class lectures. Students must read the assigned readings for each class and be prepared to be tested on the material. All exams and quizzes will be closed-book in-class exams.

5. Textbook

The textbook for the course is Microeconomics, by Paul Krugman and Robin Wells, New York: Worth Publishers.

6. Attendance

Attendance will not be recorded. However, since a part of the course grade depends on the almost-daily quizzes, and on presentation of projects, absences will have a negative effect on your grade. You can miss up to 4 of the quizzes without affecting your grade adversely (since I will drop the 4 lowest scores for each student) Moreover, students should recognize that performance in exams is usually positively correlated with attendance.

7. Academic Code of Honor

The class is conducted in accordance with the Notre Dame Academic Code of Honor. All work on the quizzes and examinations is to be the work of the individual student. Students may (and indeed are encouraged to) work together in preparation for classes and in studying for the exam. For the group project students should work only with members of their group.

8. Miscellaneous

My office hours will be on Tuesdays and Thursdays, 9.30 to 10.30 AM. in my office at Decio 420, or by appointment. My office extension is 1-7594 and my e-mail address is adutt@nd.edu. Students are encouraged to come and see me for any questions they may have. Finally, let me take this opportunity to wish you all the best for this class and hope that you will both enjoy it and benefit from it.
## Course schedule

<table>
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<th>Month</th>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
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<td>August</td>
<td>22</td>
<td>Introduction</td>
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<td>25</td>
<td>Economic models</td>
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<td>29</td>
<td>Models, relations and graphs</td>
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<td>Supply and Demand</td>
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<td>September</td>
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<td>Supply and Demand and Market interventions</td>
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<td>Elasticity</td>
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<td>Consumer and producer surplus</td>
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<td>Quiz 1</td>
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<td>19</td>
<td>Making decisions</td>
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<td>Inputs and costs</td>
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<td>Partial and general equilibrium</td>
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<td>Factor markets and distribution</td>
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<td>Efficiency and equity</td>
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<td>International Trade</td>
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<td>Monopolistic Competition</td>
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<td>Public goods and common property</td>
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<td>Taxes, government spending and income distribution</td>
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<td>December</td>
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<td>Technology, information and network externalities</td>
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Course outline

I. The Basics

1. Introduction and first principles
   a. Economics and the economy
   b. Market and command economies
   c. Microeconomics and Macroeconomics
   d. Individual choice:
      i. Scarce resources
      ii. Opportunity cost
      iii. Marginal decisions
      iv. Exploiting opportunities
   e. Interactions:
      i. Gains from trade
      ii. Equilibrium
      iii. Efficiency and equity
      iv. Markets and efficiency
      v. Market failure and government intervention
   f. Application: Economic “miracles”
   Reading: KW, Introduction, Chapter 1

2. Economic Models
   a. Models
   b. Production possibility frontier
   c. Comparative advantage and the gains from trade
   d. Circular flow
   e. Using models
   f. Graphs and models
      i. Graphs, variables and models
      ii. Graphs and curves
      iii. Slopes
      iv. Maximum and minimum
      v. Numerical graphs
      vi. Problems in interpreting numerical graphs
   Reading: KW, Chapter 2, Chapter 2 appendix

3. Supply and Demand
   a. Model of a competitive market
   b. Demand
   c. Supply
   d. Equilibrium
   e. Changes in supply and demand
   f. Application
   g. Price controls
      i. Price ceilings
ii. Price floors
h. Quantity controls and taxes
   i. Quotas
   ii. Taxes
i. Applications
   Reading: KW, Chapters 3 and 4

4. Elasticity
   a. Definition
   b. Measurement
   c. Interpretation
   d. Other demand elasticities
   e. Price elasticity of supply
   f. Implications and applications
   Reading: KW, Chapter 5

5. Consumer and producer surplus
   a. Introduction
   b. Consumer surplus
   c. Producer surplus
   d. Efficiency and the gains from trade
   e. Applications
   Reading: KW, Chapter 6

II. The individual

6. Making decisions
   a. Opportunity costs
   b. Marginal analysis
      i. Marginal cost
      ii. Marginal benefit
      iii. Marginal analysis
      iv. Applications
   c. Sunk costs
   d. Present value
   Reading: KW, Chapter 7

7. Inputs and costs
   a. Production function
   b. Cost function
   c. Marginal and average cost
   d. Short-run and long-run costs
   Reading: KW, Chapter 8

8. Perfect competition and the supply curve
   a. Perfect competition
b. Profit maximization
c. Individual supply curve
d. Industry supply curve
   i. Short run
   ii. Long run
Reading: KW, Chapter 9

9. The consumer
   a. Utility and marginal utility
   b. Budgets and optimal consumption
   c. Marginal utility and the demand curve
   d. Indifference curves
   e. Indifference curves and consumer choice
   f. Effects of changes in prices and income
      i. Change in income
      ii. Change in prices
      iii. Income and substitution effects
   g. Consumer “rationality” and behavioral economics
Reading: KW, Chapters 10, 11

III. Interactions

10. Partial and general equilibrium
    a. Partial equilibrium: demand, supply and equilibrium
    b. Production possibility frontier and profit maximization
    c. Indifference curves and utility maximization
    d. General equilibrium

11. Factor markets and income distribution
    a. Factors of production
    b. Income distribution
    c. Marginal productivity and factor demand
    d. Marginal productivity theory of income distribution
    e. Deviations from marginal productivity theory
    f. Labor supply
    Reading: KW, Chapter 12 with appendix

12. Efficiency and equity
    a. Supply, demand and efficiency
    b. General equilibrium and efficiency
    c. Inefficiency in the economy
    d. Equity and fairness
    e. Equity and efficiency
    Reading: KW, Chapter 13
13. International trade
   a. Comparative advantage and the gains from trade
   b. Sources of comparative advantage
      i. Climate
      ii. Technology
      iii. Factor endowments
      iv. Increasing returns
   c. Supply, demand and international trade
   d. International trade and factor markets
   e. Trade protection
      i. Effects of protection
      ii. Long-run effects of protection
      iii. Political economy of protection
   Reading: KW, Chapter 17

IV. Market Failures and Government intervention

14. Monopoly
   a. Market structures
   b. Meaning of monopoly
   c. Monopoly equilibrium
      i. Demand curve and marginal revenue
      ii. Profit maximization
      iii. Monopoly versus perfect competition
   d. Monopoly and public policy
      i. Preventing monopoly
      ii. Dealing with natural monopoly
   e. Price discrimination
   Reading: KW, Chapter 14

15. Oligopoly
   a. Oligopoly and its prevalence
   b. Understanding oligopoly
   c. Games
   d. Kinked demand and price rigidity
   e. Oligopoly in practice
   Reading: KW, Chapter 15

16. Monopolistic competition and product differentiation
   a. Meaning of monopolistic competition
   b. Understanding monopolistic competition
      i. Short run
      ii. Long run
      iii. Compared to perfect competition
   c. Debates regarding monopolistic competition
      i. Advertising
ii. Brand names

d. Applications
Reading: KW, Chapter 16.

17. Risk and imperfect information
   a. Risk and expectations
   b. Expected utility and risk aversion
   c. Buying, selling and reducing risk
   d. Imperfect information
      i. Private information and asymmetric information
      ii. Adverse selection
      iii. Moral hazard
      iv. Applications
Reading: KW, Chapter 18.

18. Externalities
   a. Externalities
   b. Costs and benefits of pollution
   c. Private solutions to externalities
   d. Policies towards pollution
   e. Production, consumption and externalities
   f. Applications
Reading: KW, Chapter 19.

19. Public goods and common resources
   a. Private goods
   b. Public goods
   c. Provision of public goods
   d. Common resources and the tragedy of the commons
   e. Artificially scarce goods
Reading: KW, Chapter 20.

20. Taxes, social insurance and income distribution
   a. Taxes and tax policy
   b. Government spending
   c. Poverty
   d. Income distribution
   e. Government policy on poverty and income distribution
Reading: KW, Chapter 21.

21. Technology, information goods, and network externalities
   a. Economics of information goods
   b. Intellectual property rights
   c. Network externalities and lock in
   d. Government policies regarding information goods and network externalities
Reading: KW, Chapter 22.