

***ECONOMICS 305: INTERMEDIATE MICROECONOMICS***  
***(Spring, 2008)***

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***Office Hours:*** T & Th 4 to 5 pm or by appointment

***COURSE DESCRIPTION:***

You recall learning the basics of demand and supply in your first course in microeconomics. In this some course, in addition to demand and supply analysis, you were also exposed to some highly specialized key economic concepts, such as elasticities of demand and supply, the law of diminishing marginal utility, production and cost functions, the basic rules for utility and profit maximization, economies and diseconomies of scale, perfect competition, monopoly, oligopoly, consumer and producer surpluses, price ceiling, price floor, dead weight-loss, and so on.

In Intermediate Microeconomics, you will be probably disappointed to hear that you will learn only a few genuinely new additional microeconomic concepts. Thus, basically, *Intermediate Microeconomics is an advance treatment of the concepts that you have already been exposed to in your first course in economics.* It is predominantly a *theory-oriented* course and as such tends to be highly abstract and technical. To the extent application exercises are used, they are mainly aimed at reinforcing understanding of a specific microeconomics theory rather than to actually shade lights on a real word problem(s). It is a course designed primarily to *economic majors* with the sole intent of teaching them the “neoclassical economics way of thinking” in a rigorous and comprehensive manner. More specifically, this is a course where you actually, through repeated exercises, learn the broad and wider applications of those analytical approaches that are so profoundly unique to modern economic science—marginal and partial equilibrium analysis.

This course assumes that students have taken a course in ***calculus***. **Prerequisites:** Eco 105 and Eco 205 or Math 112.

***REQUIRED READINGS:***

Pindyck, Robert and Rubinfeld, Daniel, *Microeconomics*, 6<sup>th</sup> edition, Prentice Hall, 2005.

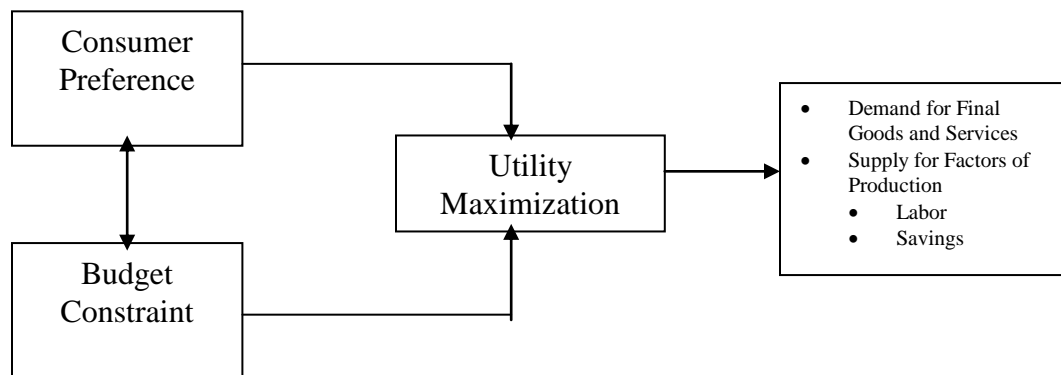
*Additional readings will be placed on reserve in the Library as needed.*

**LECTURE OUTLINE:**

**PART I**

**THE THEORY OF CONSUMER CHOICE:  
Output Demand and Input Supply**

**The Theory of Consumer Choice: A Schematic View**



Part I, the theory of consumer choice, deals with every day decisions a *rational* and well-informed consumer makes, such as on how much of her/his monthly income to spend for buying food or other consumption goods and services; how much time to spend working or relaxing; and how much to save. These decisions, as implied by the above diagram, are done after careful consideration of the preference function, budget constraint and utility maximizing behavior of the individual consumer. As implied by the entries in the last box of the above diagram, it is also out of this intellectual exercises that generalized theories of *consumer demand* for final goods and services and *supply* for a factor of production, such as labor are derived.

**A. The Choice of the Optimal Consumption Bundle**

**Week 1:** Chapter 3 (pp. 63 – 97), Appendix of Chapter 4 (pp. 146-147)

- Basic Assumptions about Consumer Behavior
- Consumer Preferences and Budget Constraints
- The Equi-marginal Condition for Utility Maximizing Consumption Choice
- Applications

## **B. From the Theory of Choice to the Theory of Consumer Demand**

**Week 2 :** Chapter 4 (pp. 107-131), Appendix of Chapter 4 (pp. 145-152)

- Changes in Price and Consumer's Choice: Derivation of Individual Demand Curve
- Income Changes and the Engel Curves
- Income and Substitution Effects
- From Individual to Market Demand
- Elasticity of Demand
- Consumer Surplus
- Applications

## **C. The Consumption-Leisure Choice and the Choice to Save or Borrow**

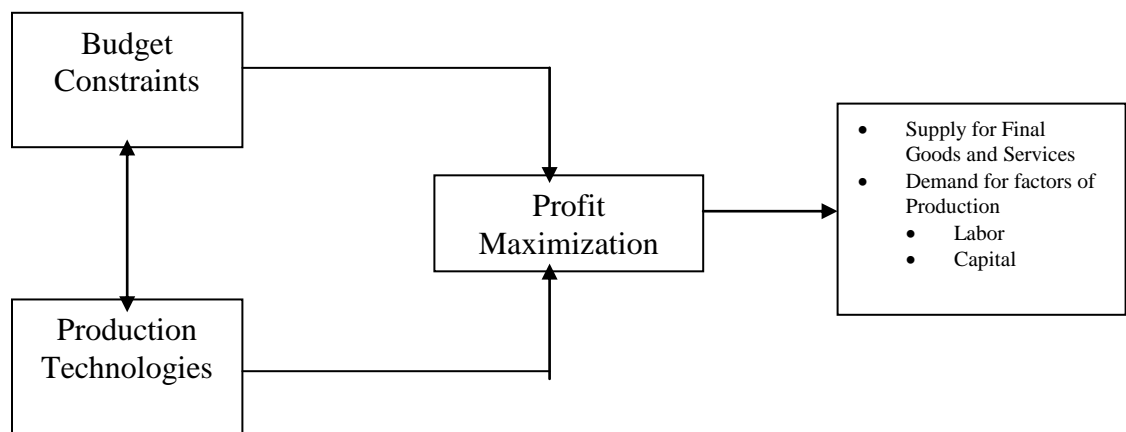
**Week 3:** Chapter 14 (pp. 523-527), Chapter 15 (pp.571-573)

- The Income-Leisure Choice
- Derivation of the Supply of Labor
- Intertemporal Time Preference
- The Optimal Saving or Borrowing
- How Are Interest Rates Determined? Supply and Demand for Loanable Funds
- **Mid-term Exam I**

End of Part I

**PART II:**  
**THE THEORY OF THE FIRM:**  
**Output Supply and Input Demand**

**The Theory of the Firm**



Part II, the theory of the firm, deals with how a business entity with a singular objective to maximize profit makes decisions, such as on how many units of output to produce and workers or some other factor of productions to use in its daily business dealings. This is done, as indicated in the diagram above after careful considerations of the firm's technological options (which determines the structure of the cost of production), budget constraint and profit maximizing behavior. This basic theory of the firm is the cornerstone for the neoclassical theories of *supply* for final goods and services and the *demand* for factors of production (see the last box in the above diagram).

**A. The Nature and Scope of the Technological Option of the Firm**

**Week 4:** Chapter 6 (pp. 187-209)

- The Firm and Its Objectives
- The Technology of Production: The Production Function
- The Short-run versus the Long Run

- The Law of Diminishing Marginal Product (Returns)
- The Concept of an Isoquant and Factor Substitution
- Diminishing Marginal Rate of Technical Substitution
- Returns to Scale
- Technical Progress versus Input Substitution
- The Cobb-Douglas Type Production Functions and their Properties
- Applications

## **B. The Optimal Input Mix and Long-Run Cost of a Competitive Firm**

*Week 5:* Chapter 7 (pp. 225-239), Appendix to Chapter 7 (pp. 256-258)

- Short-run versus Long-run
- The Equi-Marginal Condition for Cost Minimization—Optimal Input mix
- The Expansion Path of a Competitive Firm
- Derivation of the Long-run Cost Curve of a Firm
- General Features of Long-run Cost Functions and their Explanations
- Economies and Diseconomies of Scale

## **C. Theory of the Short-Run Production Cost**

*Week 6:* Chapter 7 (pp. 213-223)

- The Link Between Short-run and Long-run Cost Functions
- The Various Concepts of Cost
- The Conventional Short-run Cost Function and Their Properties

## **D. Optimal Output Choice (Profit Maximization) and the Theory of Supply**

*Week 7:* Chapter 8 (pp. 261-287)

- The Marginal Revenue Function of a Competitive Firm
- The Equi-Marginal Condition for Profit Maximization: Competitive Firm
- The Short-Run Supply Curve of a Competitive Firm
- Derivation of the Short-Run Market Supply Curve
- Factors Affecting the Short-Run Supply Curve
- Producers Surplus in the Short-run
- Choosing Output in the Long Run

- Long-run Competitive Equilibrium

### E. The Demand for Factors of Production

**Week 8:** Chapter 14 (pp. 515-521; 528-531)

- Profit-Maximizing Behavior and the Hiring of Inputs
- The Demand for Labor: A Single Variable Input Case
- Two Variable Input Case
- Factors Affecting the Demand for Labor
- Equilibrium in a Competitive Labor Market
- Economic Rent
- **Mid-term Exam II**

## PART III

### PRICING AND OUTPUT DECISION UNDER ALTERNATIVE MARKET STRUCTURES

Parts I and II together thoroughly and systematically examined the neoclassical theories of demand and supply (for both the product and factor markets). This investigation was done assuming a perfectly competitive market structure. Part III, which in some respect is an extension of Parts I and II, deals with two pertinent issues. It starts with a comprehensive evaluation of the performance of a perfectly competitive market system in the long-run—the so-called Adam Smith’s Invisible Hand Theorem. The second issue deals with the effects of *market imperfections* on the pricing, production and employment decisions of a firm and what these outcomes might suggest to the efficiency by which resources allocated for society at large.

### A. Pricing and Output Decisions in Markets of Perfect Competition and Pure Monopoly: An Evaluative Approach

**Week 9:** Chapter 10 (pp. 339- 364; pp. 372-377), Chapter 11 (pp. 381-393; 415-419)

- The Competitive Market: the Best of all Worlds!
- Pricing and Output Decision: The Case of a Pure Monopoly Firm
- Monopoly Power and Its Sources
- Efficiency Loss and Income Redistribution Effects of Monopoly Pricing

- Price Discrimination
- The Economics of Advertising
- Alternative Public Policy to Regulate Monopoly Pricing Practices
- A Natural Monopoly and its Regulations

<p><b>B. Pricing in Markets that Fall between the Polar Extremes of Perfect Competition and Monopoly</b></p>
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*Week 10:* Chapter 12 (pp. 435-442; pp. 453-458), Chapter 13 (pp.473-480)

- Pricing and Output Decision Under Monopolistic Competition
- Oligopolistic Market Structure
- Strategy and Game Theory
- Concluding Remark

**GRADING:**

Two Mid-term Exams.....	60%
Final Exam.....	30%
Quiz and Other Class Assignments	10%

***IMPORTANT NOTE:*** Any student with a disability who needs an accommodation or other assistance in this course should make an appointment to speak with me as soon as possible.