ECONOMICS 305: INTERMEDIATE MICROECONOMICS
(Fall 2003)

Instructor: Ahmed M. Hussen
Office: Dewing 306A, Phone #: 7025
Office Hours:

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 that 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*, 5th edition, Prentice Hall, 2001.

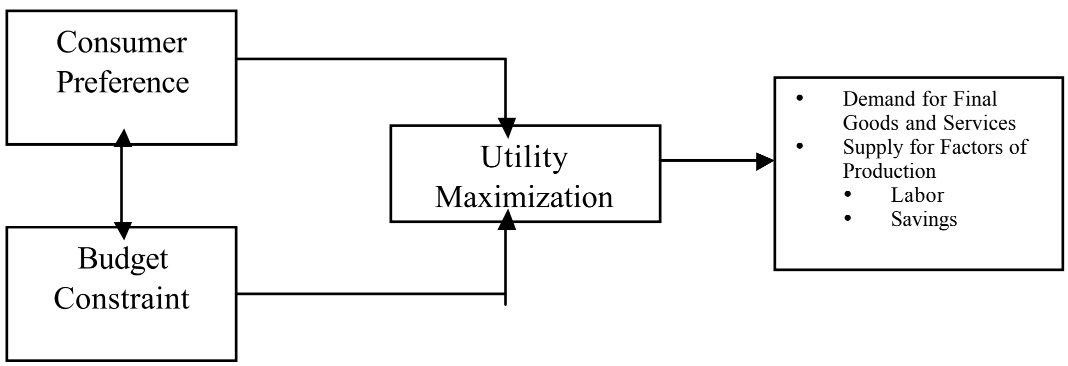
Additional readings will be placed on <u>reserve</u> in the Library as needed.

<u>LECTURE OUTLINE</u>:

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. 51 – 84; 89-91)

- The Economic World: Basic Assumptions

- Utility and Choice
- 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. 101-126; 131-135), Appendix to Chapter 4 (pp.139-147)

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

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

Week 3: Chapter 14 (pp. 509-513)

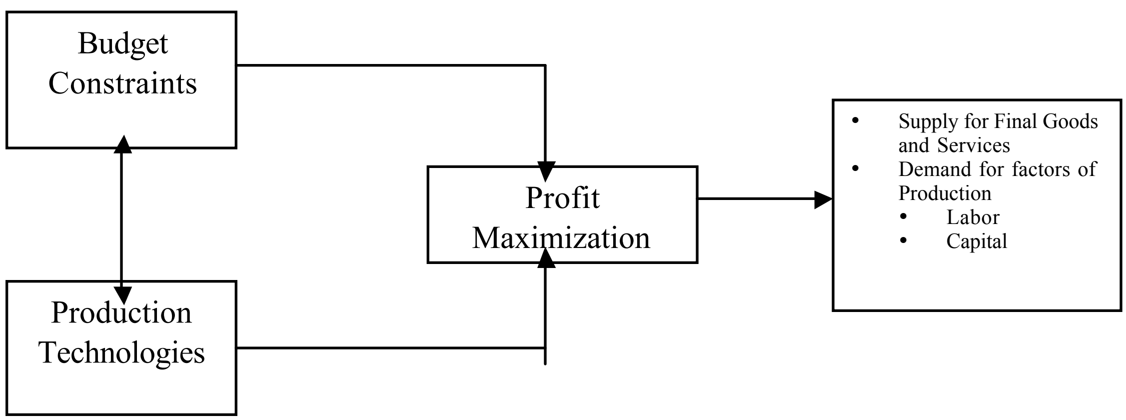
- The Consumption-Leisure Choice
- Derivation of the Labor Supply Curve
- Consumer's Time Preference
- The Optimal Saving
- **Mid-term Exam I**

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. 177-201)

- The Firm and Its Objectives
- The Production Technology of the Firm: Production Functions
- The Law of Diminishing Marginal Productivity
- The Concept of an Isoquant and Input Substitution
- Returns to Scale
- Technical Progress versus Input Substitution
- The Cobb-Douglas Type Production Functions and their Properties
- Applications

B. The Optimal Input Choice of the Firm

Week 5: Chapter 7 (pp. 203-208; 215-224)

- Basic Concepts of Costs
- Short-run versus Long-run
- The Equi-Marginal Condition for Cost Minimization—Optimal Input Choice
- The Expansion Path of a Competitive Firm

C. From Input Choice to the Theory of Production Cost

Week 6: Chapter 7 (pp. 224-229; 208-215), Appendix to Chapter 7 (pp. 246-250)

- Derivation of the Long-run Cost Curve of a Firm
- General Features of Long-run Cost Functions and their Explanations
- The Link Between Short-run and Long-run Cost Functions
- The Conventional Short-run Cost Function
- The Basic Features of Short-run Cost Curves and their Properties

D. Optimal Output Choice and the Theory of Supply

Week 7: Chapter 8 (pp. 251-271)

- The Nature of the Firm's Marginal Revenue Function
- The Equi-Marginal Condition for Profit Maximizing Output Choice
- The Short-Run Supply Curve of a Competitive Firm
- The Short-Run Market Supply Curve
- Factors Affecting the Short-Run Supply Curve
- Short-run Price Determination

E. Optimal Output Choice and the Theory of Input Demand

Week 8: Chapter 14 (pp. 501-509; 514-518)

- 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 the Labor Market
- **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 in Markets of Perfect Competition and Monopoly: An

Week 9: Chapter 8 (pp. 271-277), Chapter 16 (pp. 590-593), Chapter 10 (pp. 327-351; 359-362), Chapter 11 (369-381)

- The Competitive Market: the Best of all Worlds!
- Monopoly Power
- Pricing and Output Decision of a Monopoly
- Efficiency Loss and Income Redistribution Effects of Monopoly Pricing
- Price discrimination and for what purpose!
- Alternative Public Policy to Regulate Monopoly Pricing Practices
- A Natural Monopoly and its Regulations

B. Pricing in Markets that Fall between the Polar Extremes of Perfect Competition and Monopoly

Week 10: Chapter 12 (pp. 323-330; 442-448), Chapter 13 (pp. 461467)

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

<u>GRADING:</u>

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.