

Vanguard University  
School for Professional Studies  
Degree Program

**“MANAGERIAL ECONOMICS”**  
BUOM #472

Student Guide

09/07

## TEXTS AND MATERIALS

### **Required texts:**

Rohlf, William D. (2005). Introduction to Economic Reasoning (Seventh edition). Pearson Addison Wesley.

## COURSE DESCRIPTION

An examination of the principles of economics needed to be understood and utilized by managers and supervisors in all fields. The internalization of the U.S. economy and possible actions affecting economy in all organizations will be included.

## LEARNING OUTCOMES

Upon completion of this course, the student should be able to:

1. Approach problems from the perspective of the economist, by identifying the core issues underlying economic behavior, and developing the relevant testable implications.
2. Identify the core issues underlying economic behavior and utilize economic terminology and concepts in practical applications of managerial decision-making.
3. Assess polemic economic theories from a Christian perspective.
4. Recognize the invisible hand and the other forces at work guiding individual choice and firm behavior.
5. Utilize some simple and practical economic models to predict the economic outcomes for price, quantity, and profit in the market.
6. Exercise the basic quantitative methods of microeconomics.
7. Appreciate the balance between objectivity and morality for business decision-making.

## OVERVIEW

The economic forces of the market contain both opportunities and constraints for succeeding in the world of business. This course establishes a foundation for understanding the relevant variables at work. The goal is to start the student on the pathway towards understanding the economic way of thinking and to provide the analytical tools essential for understanding individual, firm, and government behavior. The focus will be on practical applications based on relevant theory that any manager or supervisor might experience within her own decision-making.

Over a hundred years ago, Thomas Carlyle, a Scottish essayist, referred to economics as a “dismal science” because economists in his day could make only depressing predictions about the future of the human race. Since then economics has made considerable progress; it has become more scientific. Today, we know much more about the way people think and how they make decisions concerning their own welfare. We can still say economics is dismal, but now it is because so few people really understand it.

The purpose of this course is to introduce the economic way of thinking. We will study several theories and models to learn how they illuminate human behavior. The goal is not only to explore economic life, but also to predict the real consequences of decisions.

You should be aware that economists do not look at the world as other people do. They have a way of thinking and define a number of concepts that are unique to this particular field of study. The economist’s understanding of terms like profit will be much different than the accountant’s meaning. Such terminology enables the economist to make order out of what appears to be a chaotic.

## THE TEXTBOOK

The textbook selected for this course was especially designed and written for students who must cover a wide range of economic topics in a short period of time. Its chapters are roughly divided between the two major branches of economics: macroeconomics and microeconomics. We will focus on those chapters that can be grouped under microeconomics, with the last class devoted to macroeconomics. You will be responsible only for those listed in your weekly assignments.

## PERSPECTIVES FOR MANAGERS

Managers of today’s business enterprises must understand four fundamental aspects of economics: economics is a science, economics is distinguishable from other sciences, economic outcomes or conclusions increase our understanding of human behavior, and economic processes are always concerned with efficiency.

## ECONOMICS IS A SCIENCE

Whenever we want to make a statement about an economic problem, we must carefully distinguish between two kinds of statements. One kind says what ought to be done. This is called a normative statement. The other kind says this is what the case is, or what will happen if a particular solution is enacted. This is called a positive statement.

For economics to be handled as a science, we must set aside what we would like in favor of what is. A brief illustration will show the difference. A non-economist, who wants to improve the earnings of workers in low-paying jobs, will say we ought to increase the minimum wage. This is a normative statement. The economist says any increase in the minimum wage will result in some unemployment. This is a positive statement.

Having made this distinction, then, it is possible to understand why we say this course is concerned with the way things are, not the way we would like them to be.

## **ECONOMICS AND OTHER SCIENCES**

Economists deal with problems that surround us every day. But economists are not the only people who see these problems. They just see them in a different way than other people do. For example, a social scientist observing a young woman buying a red sweater is likely to think the buyer is middle or upper class, well-educated, a college graduate perhaps, and concerned about her relationship with her peers. An engineer may see the same woman in another light. The engineer thinks about the machinery used to make the sweater, the sequence of manufacturing operations, and quality standards. Similarly, a chemist will think about the dyes used in the chemicals to bring about a color that will appeal to buyers.

An economist is likely to think about the factors leading up to the market transaction wherein the seller is willing to part with the sweater at a particular price and a buyer is willing to give up what other opportunities are presented to her in order to acquire the sweater.

The economist might go a step further. The economist will see that the sweater does more than provide immediate enjoyment. Such pleasure will be spread out over a number of years or a shorter period if fashions change.

## **ECONOMICS AND HUMAN BEHAVIOR**

Over two hundred years ago, Adam Smith wrote his classic, An Inquiry into the Nature and Causes of the Wealth of Nations. In it he argued that men and women seek to make the best of every decision, to maximize the good as they see it. Non-economists have interpreted this to mean that men and women are selfish animals who seek only the greatest profit for themselves no matter how it hurts others. Modern economists give his axiom a much broader interpretation. They say there is a difference between being self-interested and being self-centered; that we might try to obtain the greatest reward for our efforts but we often have values that are not self-centered, like a father providing for his family or a social worker trying to obtain food and clothing for the poor.

## **ECONOMICS AND EFFICIENCY**

One final point before we get into our subject. Economists are very concerned with efficiency. Indeed, efficiency and economy mean the same thing. Both words refer to the means used to achieve desired ends. The more efficient a production process, the more economical it is. More will be said on this subject later in the course.

## COURSE POLICIES

- **ATTENDANCE AND TARDY POLICY**

You must attend class on time and remain present until dismissed. Class attendance is necessary in order to complete the course. The School for Professional Studies relies on the dynamics of class interaction and group processing in order to integrate and apply the learning of academic content. This model also emphasizes the development and practice of interpersonal communication skills and teamwork (e.g., group problem solving and negotiation). The format therefore necessitates class attendance. In practical terms, one course session is equivalent to three weeks of traditional semester course work.

*Due to the concentrated scheduling and the emphasis upon participatory learning, students need to be in attendance every week. Students who miss more than one class meeting (or more than five class hours) in any given course will automatically receive a failing grade and need to retake the course to obtain a passing grade. If an instructor deems that a student's second absence was under extremely unavoidable and unusual circumstances (i.e., an auto accident), the professor may file an academic petition on behalf of the student to the Dean of SPS. If the academic petition is approved, the instructor may give the student a "W" (Withdrawal) grade in place of a failing grade. The student will still be required to retake the course.*

Students who arrive late disturb the class. At the professor's discretion, students who arrive late may not receive participation points for the unit covered. Students who are habitually late may be asked to drop the course.

- **CLASS PARTICIPATION**

You must be prepared and participate in all discussions. Criterion: Is the student engaged in classroom discussions? Does the student demonstrate an ability to handle assigned material with a degree of proficiency? (E.g., demonstrate the type of questions and issues consistent, and reflecting a familiarity with the assigned material). Participation evaluated according to quality, not quantity, of participation. Attendance will be scored, and no participation points will be awarded if the student is absent.

- **SUBMISSION OF FINAL EXAMS / PAPERS**

The School for Professional Studies office does not assume responsibility for any final papers. No homework or final papers will be accepted for professors in the SPS office, nor will final papers be returned to students through the SPS office.

The method for the submission of homework and the final exam or final paper will be determined by the professor. The professor will discuss the method which will be employed during the first night of class. All exchanges of papers will be between the student and the professor.

- **LATE PAPER POLICY**

You are responsible for submitting assignments on time (by 6:00 pm). Unless authorized by the Professor in advance, no credit will be given for assignments not turned in when due.

- **ACADEMIC DISHONESTY**

Work submitted for assessment purposes must be the independent work of the student concerned. Plagiarism, or copying and use of another's work without proper acknowledgment, is not permitted. Nor is it permissible for any former or present student to allow another student to refer to, use as a sample, or in any way copy or review their work. If a student needs guidance, he or she must seek the Professor's assistance.

**STUDENT ASSIGNMENTS****WEEK ONE**

1. Read Rohlf, Chapters 1 and 2.
2. Read Appendix 1 (at the end of Chapter 1 in Rohlf): Working with Graphs.
3. Note: no problem sets or exercises are due.

**WEEK TWO**

1. Read Rohlf, Chapters 3 and 4.
2. Due at beginning of class: Problem Set 2 in the Student Guide.
3. Due at beginning of class: Exercise 2 in the Student Guide.

**WEEK THREE**

1. Read Rohlf, Chapters 5 and 6.
2. Due at beginning of class: Problem Set 3 in the Student Guide.
3. Due at beginning of class: Exercise 3 in the Student Guide

**WEEK FOUR**

1. Read Rohlf, Chapters 7 and 8.
2. Due at beginning of class: Problem Set 4 in the Student Guide.
3. Due at beginning of class: Exercise 4 in the Student Guide

**WEEK FIVE**

1. Read Rohlf, Chapters 10, 12, and 13.
2. Due at beginning of class: Problem Set 5 in the Student Guide.
3. Due at beginning of class: Exercise 5 in the Student Guide

**STUDENT EVALUATION**

Weekly Attendance & Participation – 5 weeks	40 points/week	200 points total
Problem Set 1	0 points	None Due Week 1
Problem Set 2	100 points	Due Week 2
Problem Set 3	100 points	Due Week 3
Problem Set 4	100 points	Due Week 4
Problem Set 5	100 points	Due Week 5
Exercise 1	0 points	None Due Week 1
Exercise 2	100 points	Due Week 2
Exercise 3	50 points	Due Week 3
Exercise 4	50 points	Due Week 4
Exercise 5 (Final Paper)	200 points	Due Week 5
Optional Extra Credit Paper on Macroeconomics	40 points	Due no later than the first week of the next course.

**GRADING SCALE**

<b>Percentages</b>	<b>Points</b>	<b>Grade</b>	<b>Significance</b>	<b>GPA</b>
93-100%	930-1000	A	Exceptional	4.00
90-92.9%	900-929	A-		3.67
87-89.9%	870-899	B+		3.33
83-86.9%	830-869	B	Above Average	3.00
80-82.9%	800-829	B-		2.67
77-79.9%	770-799	C+		2.33
73-76.9%	730-769	C	Average	2.00
70-72.9%	700-729	C-		1.67
67-69.9%	670-699	D+		1.33
63-66.9%	630-669	D	Below Average	1.00
60-62.9%	600-629	D-		0.67
00-59.9%	000-599	F	Failure	0.00

**LOGISTICS CHART**

Hour	Week 1	Week 2	Week 3	Week 4	Week 5
1	Introduction Chapter 1	Introduction Chapter 3	Introduction Chapter 5	Introduction Chapter 7	Introduction Chapter 10
2	Chapter 1 Activity Break	Chapter 3 Activity Break	Chapter 5 Activity Break	Chapter 7 Activity Break	Chapter 12 Break
3	Chapter 2	Chapter 4	Chapter 6	Chapter 8	
4	Chapter 2 Activity Wrap Up	Chapter 4 Activity Wrap Up	Chapter 6 Activity Wrap Up	Chapter 8 Activity Wrap Up	Chapter 13 Wrap Up

<b>WEEK ONE</b>
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**Assignments Due**

1. Read Rohlfs, Chapters 1 and 2.
  2. Read Appendix 1 (at the end of Chapter 1 in Rohlfs): Working with Graphs.
  3. Note: no problem sets or exercises are due.
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**INTRODUCTION**

This session lays the foundation of our economic studies by examining some fundamental concepts. These are so important that you cannot expect to master the topics that follow without a clear comprehension of these concepts.

As we said in the introduction, economists don't think the way most people do. In a sense, economics is really a way of thinking that is different from the usual way we think. To finish this course successfully, you must learn this skill by constant practice.

After you complete the first week of this course you will have a good understanding of scarcity, opportunity cost, the production possibilities frontier, economic systems, and graphing.

**CHAPTER 1: THE STUDY OF ECONOMICS*****Synopsis:***

Economics is the study of choice. Economists study behavior in an effort: 1) to explain why people do the things they do and, 2) to predict what people will do under certain circumstances. There are three actors we will be considering in this course: individuals, firms, and the Government. Whichever actor we are speaking of, there are two fundamental concepts in this chapter that will appear over and over again in the next 5 weeks. They are Scarcity and Opportunity Cost. You will also be introduced to your first economic model: the Production Possibilities Frontier.

***Principles To Understand:***

Scarcity  
Opportunity Cost  
Marginal Analysis

## **APPENDIX 1: WORKING WITH GRAPHS**

As present and future managers, you should recognize the importance of visual aids when presenting an argument. The economic graphs in this chapter are excellent examples.

While graphing seems related to mathematics, the ability to make informative charts and graphs manually does not require anything more than following a few simple rules. It might help to regard a line as a set of points arranged so close together they seem to form one continuous line. This line might be perfectly straight, or it might have some curvature. In either case the line is called a curve.

There are three steps you will need to follow in order to read a graph

1. Is the relationship between X and Y a positive or a negative one?
2. Is the slope increasing, decreasing, or constant as you move along the curve?
3. Does the picture capture what you know is true in the real world?

## **CHAPTER 2: ECONOMIC SYSTEMS**

### ***Synopsis:***

Every society must answer three economic questions: 1) What to produce?, 2) How to produce?, and 3) For whom to produce? No two societies or countries will answer these questions in exactly the same way. This chapter considers two extreme models for answering these questions. Pure Capitalism will have very different elements than the model of command socialism. With pure capitalism, individuals make up the rules that govern society. Under command socialism, a central planning group makes up the rules. Most countries will use elements of both, and are therefore known as mixed economies.

### ***Principles To Understand:***

Economic systems

Invisible hand

Pure capitalism

Command socialism

**PROBLEM SET 2**

1. Draw graphs for and answer the questions for the scenarios on pages 33 and 34 of the textbook (15 points).
2. A theory that has been around for quite some time says, “Better-educated people earn higher incomes than less-educated people, ceteris paribus.” If we know a high school dropout who earns \$200,000 a year, does this mean that we should discard the theory? Explain. (Rohlf, problem 8, page 30). (20 points)
3. Foreign immigration into the United States normally shifts the U.S. production possibilities curve to the right. Why? If it has this impact, why do some citizens oppose immigration? Is foreign immigration a normative issue (Rohlf, problem 12, p. 30)? (20 points)
4. Plot the following production possibility schedule:

Combinations	Houses	Cars
A	0	16
B	4	12
C	7	8
D	9	4
E	10	0

Put houses on the horizontal axis. If the economy is operating at Point C, what is the opportunity cost of 1 more house? Is this cost increasing or decreasing? (20 points)

5. Draw a curve that describes the following situation. “When a firm spends nothing on safety, total costs are very high due to high accident losses. As it increases its safety spending, its accident losses drop dramatically and so its total costs fall. But beyond some level in safety costs, the reduction in accident losses fails to offset the costs of higher safety spending, and total costs begin to rise.” Place safety spending on the horizontal axis and total costs on the vertical axis. (25 points)

**EXERCISE 2**

Write a 2-page paper on the economic systems of 3 countries (the instructor may specify a particular region of the world to research, like 3 countries of the European Union, or 3 countries of the Middle East). Compare and contrast the countries to each other, ranking their positions on the continuum of command socialism and pure capitalism. Support your claims with facts.

**(warning: this is a microeconomic analysis of economic systems, not a macroeconomic paper describing what each country produces each year, what the output is, unemployment, etc.)**  
**Use the definitions of command socialism and pure capitalism to guide your analysis.**

<b>WEEK TWO</b>
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**Assignments Due:**

1. Read Rohlf, Chapters 3 and 4.
  2. Due at beginning of class: Problem Set 2 in the Student Guide.
  3. Due at beginning of class: Exercise 2 in the Student Guide.
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**INTRODUCTION**

These two chapters define the concept for price. Here is where you can expect the first of many different view of the market. Note that to the economist, the important thing is the price relative to other things we could purchase. By the end of the night, you should have a sense of how powerful the market place is.

**CHAPTER 3: DEMAND AND SUPPLY: PRICE DETERMINATION IN COMPETITIVE MARKETS*****Synopsis***

This chapter concentrates on the individual. We are trying to understand why people make the choices they do when it comes to buying and selling goods and services. To try to isolate behavior in terms of certain conditions, economists use models. Models are really simplified representations of what happens in the real world.

By the end of this chapter you should understand the difference between the demand curve and the supply curve. And you should know what is meant when we use the term market equilibrium. Also, it should be very clear that there is a fundamental difference between a change in the demand curve and a change in quantity demanded.

***Principles to Understand***

Law of Demand and the Law of Supply  
Market Equilibrium  
The Nature of the Price System

**CHAPTER 4: THE ELASTICITY OF DEMAND AND SUPPLY*****Synopsis***

This chapter builds on our theory of demand. We learned last time that the Law of Demand says as price falls, the quantity demanded of the good rises. We know that always will be the case for any good. The question becomes: When the price falls, I know I will demand more, but HOW MUCH more? The idea of elasticity provides an answer to this question.

By the end of the evening, it will be clear that when a business firm raises its price, it does not necessarily increase profits at the expense of the consumer. The firm can actually lose both revenues and profits when prices rise. Conversely, a firm can increase both revenues and profits by lowering price.

***Principles To Understand:***

Price Elasticity of Demand  
Arch versus Point Elasticity  
Elasticity along a straight demand curve  
Elasticity and Total Revenue  
Factors Affecting Elasticity

**PROBLEM SET 3**

1. Which of the following events would cause movement along a stationary supply curve for wheat, and which would cause the supply curve to shift?
  - a) The price of wheat declines (5 points)
  - b) The cost of fertilizer rises (5 points)
  - c) Wheat blight destroys half the wheat crop (5 points)
  - d) New combines make it possible for one person to do the work of three. (5 points)
  
2. Explain the economic reasoning behind the following newspaper headlines, in terms of Supply and Demand and prices:
  - a) “Weather Slows Fishing: Seafood Prices Double” (5 points)
  - b) “Sugar: Crisis of Plenty” (5 points)
  - c) “Minimum Wage Costs Jobs” (think about artificial pricing (price supports and ceilings) vs. the equilibrium of supply and demand. (5 points)
  - d) “Bountiful Wheat Crop is Hurting Growers” (5 points)
  
3. If the supply of oranges in a competitive market decreases as a result of severe weather, will there be a shortage of oranges? Why or why not? Use graphs to answer the question. (15 points for analysis and 15 points for graph)
  
4. If a college increases tuition as a method of increasing total revenue, what assumption is it making about the elasticity of demand for its service? Do you think that assumption is valid for Vanguard University? Why or why not? (30 points)

**EXERCISE 3**

Find an article in a newspaper or magazine that describes either a shift in supply or a shift in demand. The shift may have already occurred, may be occurring at the present time, or might occur in the future.

1. Make a copy of the article or clip it from the publication, and respond to the following:
  - a) Draw a graph showing the demand or the supply curve before and after the shift.
  - b) Identify a single sentence that describes the change in the determinant of demand or supply that has caused the shift. Categorize that determinant as we did in class.
  - c) Draw a bracket around the word or phrase that indicates through whom, the buyer or the seller, the change in the market will be made.
  - d) What happens to market equilibrium?

(30 points)

2. The demand schedule for popcorn listed below shows the specific quantities demanded at alternative prices. Your assignment is:
  - a) Graph the demand curve.
  - b) Determine how much money will be spent on popcorn at prices of \$.35, \$.20, and \$.05?

(10 points for part A and 10 points for part B)

Point	Price	Quantity Demanded
A	\$ 0.50	1
B	0.45	2
C	0.40	4
D	0.35	6
E	0.30	9
F	0.25	12
G	0.20	16
H	0.15	20
I	0.10	25
J	0.05	30

**WEEK THREE****Assignments Due**

- 1) Read Rohlf, Chapters 5 and 6.
- 2) Due at beginning of class: Problem Set 3 in the Student Guide.
- 3) Due at beginning of class: Exercise 3 in the Student Guide

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**INTRODUCTION**

We have pointed out that human social progress would be impossible without some mechanism that can be used for the exchange of goods and services. The market is about the best mechanism mankind has devised. It doesn't always work perfectly, but it is better than central planning.

This part of the course deals with firms and their position in the marketplace. Economists recognize four kinds of market structure distinguished by the number of business firms participating in a market, the uniqueness or differences in the products, and the ability of new firms to enter the market.

These four markets fit into a spectrum. At one end are markets where competition is keenest, in fact so keen that any one business firm has virtually no control over the price at which goods can be sold. At the other end of the spectrum is the monopolist who has considerable freedom not only in setting price but also regulating the quantity of goods to be sold.

We begin our analysis by formulating one of the required tools of our analysis...marginal analysis. Marginal analysis will provide us with a decision rule for answering the all-important question how much do we produce? We learn how to recognize profit maximization. We then move on to our analysis of markets that are perfectly competitive. There aren't many such markets, but economists are interested in them because such markets mean the economy is working most efficiently; that is, getting the maximum benefit with the least cost. Next time, we will examine the other three markets. After two weeks, we will have a much better idea about the issues that guide firm behavior.

**CHAPTER 5: MARGINAL REASONING AND PROFIT MAXIMIZATION*****Synopsis***

Economists use marginal reasoning to discover exactly how objectives like utility maximization and profit maximization can be achieved. The idea is a simple one: as long as the amount you are taking in is greater than what is leaving, you consume it or you produce it. By following this premise, you will see that profit maximization is also achieved.

This tool—known by economists as marginal analysis and by everyone else as cost-benefit analysis—will show up over and over again throughout the course, because it is relevant for all the economic actors. You may find the concept popping up very often in your own lives as well.

***Principles to Understand***

Fixed Costs	Marginal
Profit	Sunk Cost
Total Costs	Variable Costs

**CHAPTER 6: PRICE TAKING: THE PURELY COMPETITIVE FIRM*****Synopsis***

It is reasonable to assume a business firm wishes to make a profit. Indeed, economists assume a firm seeks to maximize its profits and uses production and pricing strategies to achieve this goal. From the firm's perspective, the key questions asked involve: 1) What level of output to produce?, 2) Do we stay in business or shut down? To this scenario we add the complication of the short run and the long run.

This chapter describes the foundations for the model of a perfectly competitive firm. The cornerstone of the model is the idea that the perfectly competitive firm is a price taker. In other words, because the firm makes up such a small portion of total sales in its particular market, the market rather than the pricing decisions of the firm's managers guides the price charged. The equilibrium point from the demand and supply model gives us this price. We will explore the implications of this point and of others tonight.

***Principles To Understand:***

Characteristics of the Perfectly Competitive Firm  
Production Decisions  
Firm Supply Curve in the Short Run  
Firm Supply Curve in the Long Run

**PROBLEM SET 4**

1. Tonya Smith is a media consultant at Quark-Arts, Inc., a Corona, California, marketing firm. Smith has gathered the following data on weekly advertising media expenditures and gross sales for an important client, Glamour Designs.

Media Expenditures	Gross Sales Newspapers	Marginal Benefit Newspapers	Gross Sales from Radio Ads	Marginal Benefit Radio	Gross Sales from Television	Marginal Benefit from T.V.
\$ 0	\$ 10,000		\$ 10,000		\$ 10,000	
First \$100	15,000		14,000		13,000	
Next \$100	17,200		17,600		15,600	
Next \$100	20,000		20,100		18,000	
Next \$100	21,600		22,000		18,600	
Next \$100	22,200		22,400		18,800	

- a) Notice that if Glamour Designs spends nothing on advertising, Gross Sales for their product is \$10,000. By spending \$100 (MC = 100) they can increase sales by much more than the \$100. But, by how much exactly (do not subtract the \$100 cost of advertising)? Fill in the table of marginal benefit. (15 points)
  
- b) If Glamour Designs has an advertising budget of \$500 per week, how should this money be spent? Remember, Glamour Designs does not have to spend all the money in one place, but wants the greatest marginal benefit for each \$100 it spends. (10 points)

2. Complete the following table, then plot the marginal cost and the average total cost curves on the same graph. (Ascertain your fixed cost first.) At what output rate is ATC minimized? Explain in detail why that point is significant.

Rate of Output	Total Cost	Marginal Cost	Average Fixed Cost	Average Variable Cost	Average Total Cost
0	\$100	-	-	-	-
1	110				
2	130				
3	165				
4	220				
5	300				

(15 points) Fill in the table correctly

(10 points) The answer: ATC is minimized at \_\_\_ units

3. The following table indicates the average total cost of producing varying quantities of output from three different plants:

Rate of Output	10	20	30	40	50	60	70	80	90	100
Average Total Cost										
Small firm	\$ 600	\$ 500	\$ 400	\$ 500	\$ 600	\$ 700	\$800	\$900	\$1000	\$1100
Medium Firm	800	650	500	350	200	300	400	500	600	700
Large Firm	1000	900	800	700	600	500	400	300	400	500

- a) Plot the ATC curves for all three firms on the same graph.

(10 points) graph

- b) Which plant(s) should be used to produce 40 units?

(10 points)

- c) Which plant(s) should be used to produce 100 units?

(10 points)

- d) Explain the concept of economies of scale. Relate that concept to your graph.

(5 points)

4. Given the following information:

Quantity	Total Cost	MC	MR	TR	Profit
0	\$ 50	-	-	-	<b>-50</b>
1	100				
2	130				
3	180				
4	260				
5	380				

If the prevailing price of this firm's product is \$50, how many units of output should it produce? Would it earn a profit or incur a loss? How much profit or loss? You do not have to fill in the graph, but it will be helpful to you to get the answer.

(15 points)

**EXERCISE 4**

Find an article in a newspaper or magazine about an event that would cause productivity and costs to change within a single market.

Make a copy of the article or clip it from the publication, and respond to the following:

- a) Underline the statement about the event altering productivity or costs. The event may have occurred in the past, may be occurring in the present, or may occur in the future.
- b) Which of the following statements best indicates the effect on average costs?
  - i. The average cost curve drops below where it would have been if the event had not occurred.
  - ii. The average cost curve rises above where it would have been if the event had not occurred.
- c) Circle the statement that indicates the effect of the event on production rates, prices, unit costs, or productivity.
- d) Make sure the name of the article source and date and page are indicated

**WEEK FOUR****Assignments Due**

- 1) Read Rohlf, Chapters 7 and 8.
  - 2) Due at beginning of class: Problem Set 4 in the Student Guide.
  - 3) Due at beginning of class: Exercise 4 in the Student Guide
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**INTRODUCTION**

This course continues the discussion of the firm and its environment. We have been building an understanding of how firms make decisions about production and pricing. Since the competitive firm was a price taker, the firms with market power allowed us to more fully investigate the pricing decision.

**CHAPTER 7: PRICE SEARCHING: THE FIRM WITH MARKET POWER*****Synopsis***

We consider the other end of the spectrum for market structure in this chapter. Firms that have discretion in their pricing policies face much different circumstances in their environments. These firms for whatever reason possess the ability to keep other firms out of the industry. Because of this there is the possibility of earning positive economic profits.

It is perhaps because of the ability to earn above normal profits, that monopolies have a bad reputation. Americans can assign a power to them that victimizes the consumer all for the good of monopoly owners. Yet monopolies can be found almost anywhere.

We will try to understand how a monopoly can exist. Is it true that a monopolist can charge whatever price it wishes? Does the monopoly always earn extraordinary profits?

***Principles to Understand***

Market power

Monopoly

Natural Monopoly

**CHAPTER 8: INDUSTRY STRUCTURE AND PUBLIC POLICY*****Synopsis***

In between perfectly competitive and monopoly markets are a variety of markets that possess different degrees of competitiveness and monopoly. Most American businesses are actually in these categories. This is where we will have the chance to consider some middle ground of the two extreme models already covered.

Monopolistically competitive firms surround us and are really marked by the product differentiation attribute. Examples include fast food, CD's, software, and books. If you walk into a bookstore and you see all the mysteries, the romances, the dramas...you can ask what kind of market is this. It could be competitive: there are many authors; free speech is a tenet of America, which insures free entry to the industry. Is there great profit? On the other hand, every book is a completely unique product. The issue here then is to model this alternative.

Oligopolies on the other hand are comprised of a few large firms. The product can be homogenous like copper or heterogeneous like cereal. The challenge to be modeled here is these firms because there are so few and because they are so large are very aware of what decisions or strategies each other is trying to follow. This adds a new wrinkle to the model that must be considered. A number of alternative models have been designed to accommodate this awareness. We can present a few of the possibilities tonight.

***Principles to Understand***

Monopolistic competition

Oligopoly

**PROBLEM SET 5**

1. The following table summarizes the weekly sale and cost situation confronting a monopolist:

Price	Quantity demanded	Total Revenue	Marginal Revenue	Total Cost	Marginal Cost	Average Total Cost	Profit TR-TC
\$35.00	10			\$150			
34.50	11			166			
34.00	12	\$408	\$28.50	184	\$18.00	\$15.33	
33.50	13			204			
33.00	14			226			
32.50	15			250			
32.00	16			276			
31.50	17			304			
31.00	18			334			
30.50	19			366			
30.00	20			400			

- a) Complete the table (10 points)
- b) Graph the demand, MR, MC, and ATC (10 points)
- c) At what rate of output is total revenue maximized? What are the values of MR and MC at the revenue-maximizing rate of output? Is this rate of output chosen by the firm? (10 points)
- d) At what rate of output are profits maximized? What are the values of MR and MC at the profit-maximizing rate of output? (10 points)
- e) What are total profits? (5 points)
- f) Suppose a competitive industry confronted the same demand and costs, what price and output levels would emerge? (5 points)

2. The following table indicates the prices various buyers are willing to pay for a Miata sports car (1 person will buy at \$50k, 2 people would buy at \$40K, 3 at \$30K, etc.):

Buyer	Maximum Price	Q	TR	MR	TC	MC	Profit
A	\$50,000						
B	40,000						
C	30,000						
D	20,000						
E	10,000						

The cost of producing all of the cars includes \$50,000 of fixed costs plus a variable cost of \$10,000 per car.

- Graph the demand, marginal revenue, and marginal cost curves. Hint: If a person is willing to buy a car for \$50,000, they are willing to buy the same car for \$40,000. (15 points)
  - What is the profit-maximizing rate of output and price for a monopolist? How much profit does the monopolist make? (10 points)
  - If the monopolist can price-discriminate, how many cars will he sell? How much profit can he make, if he price discriminates? (5 points)
3. Suppose an oligopolistic firm faced a kinked demand curve that is described by this table. Answer the questions below:

Quantity	1	2	3	4	5	6	7	8	9	10
Price	\$20	19	18	17	16	15	12	9	6	3

Where is the kink in this demand curve? *Hint: Graph total revenue.* What are the other firms doing above the kink? Below it? (10 points)

4. Identify which type of market these conditions are most likely dealing with (2 pts each) (hint: two are oligopolies, two are pure competition, and one is monopolistic competition):
- Yamaha decides to introduce a new car model for the 1<sup>st</sup> time.
  - Someone is starting a new company to produce basic rubber bands.
  - You start a series of restaurants that allows customers to bring their pets.
  - You compare prices of PDAs and there are only two brands.
  - Someone you know wants to open a basic laundry facility.

### Exercise 5

**Assignment:** Write a 7-8 page essay describing the major themes of microeconomics in which your firm operates. Alternatively, you may describe the firm for which you would like to work. Be sure to address each theme, but devote the majority of your paper to analyzing the themes that relate most significantly to your particular firm and industry. You should include an appendix of referenced graphs (these may be hand-drawn to the best of your ability to make them look professional, but use of Excel charting abilities is preferred), illustrating the points of your essay (the appendix of graphs will not count towards the required page minimum of the essay). This paper should be polished and professional: double-spaced, with a 12-pt. standard font and 1.25" margins.

The following themes should be addressed:

- Scarcity and Opportunity Cost
- Pure Capitalism vs. Command Socialism
- Law of Demand, the Law of Supply, and Market Equilibrium
- Elasticity of Demand
- Identify Fixed Costs, Variable Costs, Sunk Costs
- Price Taking vs. Price Searching
- Industry Structure (pure competition, monopolistic competition, etc.)
- Government and Public Policy

<b>WEEK FIVE</b>
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**Assignments Due**

- 1) Read Rohlf, Chapters 10, 12, and 13.
  - 2) Due at beginning of class: Problem Set 5 in the Student Guide.
  - 3) Due at beginning of class: Exercise 5 in the Student Guide
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**INTRODUCTION**

This course continues the discussion of macroeconomics. This lecture will cover the main economic indicators: unemployment, inflation and GDP. These indicate the state of the nation's economy. The United States economy will be the focus of this discussion. The lesson will also include the two mechanisms for affecting change to a nation's economy: fiscal policy and monetary policy.

***Principles to Understand***

Unemployment

Inflation

GDP

Fiscal Policy

Monetary Policy

### Extra Credit Exercise

Assignment: Write a 3-5 page essay describing the major themes of macroeconomics. Be sure to address each theme. This paper should be polished and professional: single-spaced within sections and double-spaced between sections, with 12-pt. Times New Roman font and 1” margins. Any graphs included for this assignment should be attached as exhibits and are additional to the 3-5 pages of the topic discussion.

The following themes should be addressed:

- Unemployment
- Inflation
- GDP
- Fiscal Policy
- Monetary Policy