

AP[®] Microeconomics: Syllabus 4

Syllabus 1058839v1



Scoring Components	Page(s)
SC1 The course provides instruction in basic economic concepts and promotes understanding of economic decision-making factors, such as marginal analysis and opportunity costs.	2
SC2 The course provides instruction in the nature and functions of product markets: Supply and Demand Model.	3
SC3 The course provides instruction in the nature and functions of product markets: Consumer Choice.	4
SC4 The course provides instruction in the nature and functions of product markets: Production and Costs.	5
SC5 The course provides instruction in the nature and functions of product markets: Market Structures.	6
SC6 The course provides instruction in factor markets.	7
SC7 The course provides instruction in market failure and the role of government in correcting market failure.	8
SC8 The course teaches students how to generate graphs and charts to describe economic concepts.	2
SC9 The course teaches students how to interpret and analyze graphs, charts, and data to describe economic concepts.	2

AP Microeconomics is a one-trimester (12-week) course that focuses on how economic decisions are made by individuals, firms, and organizational structures. Supply-and-demand analysis is developed to demonstrate how market prices are determined, how those prices determine an economy's allocation of goods and services, how factors of production are allocated in the production process, and how goods and services are distributed throughout the economy. We evaluate the strengths and weaknesses of economic decision makers by using the concepts of efficiency and equity. We also analyze and evaluate the effects of government intervention. Emphasis is placed on reasoned logical argument so that we can use economics as a method and model for decision making.

Text and Materials

Gwartney, James D., et al. *Economics: Private and Public Choice*. Fort Worth: Dryden Press, 2005. [SC9]

Morton, John S. *Advanced Placement Economics: Microeconomics*. New York: National Council on Economic Education, 2003. Two books: *Student Activities* and *Teacher Resources Manual*. [SC8]

Studenmund, A. H., Richard L. Stroup, and James D. Gwartney. *Coursebook to Accompany Economics: Private and Public Choice*. Fort Worth: Dryden Press, 2005.

Evaluation: Standard scores are used (mean = 50; standard deviation = 20) to evaluate student performance. The general weights assigned to the scores are:

- 1/3 — Completion of homework assignments (evaluated on a criterion-reference basis)
- 1/3 — Three problem sets (evaluated on a norm-reference basis)
- 1/3 — Two objective examinations using AP-style free-response and multiple-choice questions (midterm and final, evaluated on a norm-reference basis) [SC8]

SC9—The course teaches students how to interpret and analyze graphs, charts, and data to describe economic concepts.

SC8—The course teaches students how to generate graphs and charts to describe economic concepts.

Course Outline

Unit I (1 week)

I. Basic Economic Concepts [SC1]

- A. Scarcity: the nature of economic systems
- B. Opportunity cost and production possibilities
- C. Specialization and comparative advantage
- D. The functions of any economic system (what, how, and for whom to produce)

Performance Objectives

You must be able to:

1. Define scarcity, choice, and cost.
2. Define and compute opportunity cost.
3. List and define the axioms of economic reasoning.
4. Distinguish between positive and normative statements.

SC1—The course provides instruction in basic economic concepts and promotes understanding of economic decision-making factors, such as marginal analysis and opportunity costs.

5. List and explain the economic questions facing all nations.
6. Construct and interpret production possibilities schedules and graphs.
7. Define how production possibilities schedules and graphs illustrate the issues of scarcity, choice, and cost.
8. Define and calculate absolute and comparative advantage for production and exchange.
9. Define allocation, efficiency, and equity.
10. Explain ways in which societies determine allocation, efficiency, and equity.

Graphs

You must be able to:

1. Illustrate and label a production possibilities curve.
2. Illustrate the concepts of scarcity, choice, cost, and economic growth.
3. Illustrate the effects of trade on a production possibility graph.

Unit II-A (1 week) [SC2]

II. The Nature and Functions of Product Markets

A. Supply and Demand

1. Price and quantity determination
2. Basic manipulation of supply and demand, including ceilings and floors

SC2—The course provides instruction in the nature and functions of product markets: Supply and Demand Model.

Performance Objectives

You must be able to:

1. Define and illustrate supply and demand through schedules and graphs.
2. Distinguish between changes in supply and demand and between changes in quantity demanded and supplied.
3. Explain the inverse and positive relationships between price and quantity demanded and quantity supplied.
4. Identify and explain the variables that cause changes in supply and demand.
5. Define and illustrate equilibrium.
6. Define and illustrate surpluses and shortages.
7. Define effects of surpluses and shortages on prices and quantities.
8. Predict the changes in prices and quantities, given changes in demand and/or supply.
9. Interpret and compute equilibrium price and quantity from graphs, mathematical equations, and/or data.
10. Interpret market conditions given novel data.
11. Define and explain the effects of price ceilings and price supports.

Graphs

You must be able to:

1. Illustrate and correctly label a supply-and-demand graph.
2. Show changes in supply/demand.
3. Show the effects of a price ceiling and price floors.
4. Show a change in demand (supply) versus a change in quantity demanded (quantity supplied).

Unit II-B (1 week) [SC3]

B. Models of Consumer Choice

1. Consumer choice behind demand curve
2. Elasticity
 - 1990 AP Exam, relationship among elasticity, revenue, and profit
 - 1994 AP Exam, what happens to price and tax revenues when an inelastic product becomes more elastic

SC3—The course provides instruction in the nature and functions of product markets: Consumer Choice.

Performance Objectives

You must be able to:

1. Explain the theory of marginal utility and its relationship to demand.
2. Construct and interpret marginal utility schedules and curves.
3. Explain how a rational individual decides what to purchase, given necessary information about utility, prices, and income.
4. Derive consumer demand schedules and curves, given necessary information about utility, prices, and income.
5. Define, explain, calculate, and interpret the price elasticity of demand.
6. Identify and interpret the relationship between the price elasticity of demand and the effect of a price change on total revenue.
7. List and explain the determinants of price elasticity of demand.
8. Define, calculate, and interpret cross elasticities and income elasticities of demand.
9. Define and differentiate between normal and inferior goods.
10. Calculate and explain the price elasticity of supply.
11. Explain the burden of taxation given elasticity information.

Graphs

You must be able to:

1. Draw and illustrate an elastic and an inelastic demand curve.
2. Draw and illustrate consumer/producer tax burden given an elastic and inelastic demand curve.
3. Given a change in supply, compare and contrast the effects of price and quantity changes with elastic and inelastic demand curves.

Unit II-C (1 1/2 weeks) [SC4]

- C. Firm Production, Costs, Revenues
1. Marginal product and diminishing returns
 2. Average and marginal cost and revenues
 3. Long-run costs and economies of scale
 - No specific question from 1989 to 1995 AP Exams, but concepts are critical to answering questions about competitive and monopolistic firms
 - 1996 AP Exam, knowledge of cost concepts and graph of individual firm are necessary to answer the question
 - 1997 AP Exam, calculation of MP and use of marginal analysis to derive supply curve in a competitive firm

SC4—The course provides instruction in the nature and functions of product markets: Production and Costs.

Performance Objectives

You must be able to:

1. Define and differentiate among different businesses.
2. Define the concepts of firm and industry.
3. Define, explain, and calculate total product, marginal product, and average product, and describe the relationship among these concepts.
4. Define and interpret production functions.
5. Define and differentiate between short run and long run and between fixed and variable inputs.
6. Define the law of diminishing returns and explain how it is depicted by the total product and marginal product curves.
7. Explain the relationship between production and cost.
8. Define and differentiate between explicit and implicit costs.
9. Define and calculate cost graphs.
10. Calculate and define fixed, variable, average, marginal, and total costs, and explain how they vary with the level of output in the short run and long run.
11. Define and explain economies and diseconomies of scale and constant returns to scale.
12. Define and calculate the least-cost combination of inputs to employ for an existing firm.

Graphs

You must be able to:

1. Draw and interpret a production function graph.
2. Draw and interpret a total-cost graph and average-cost graphs.
3. Identify average-fixed, average-variable, and average-cost curves and marginal cost.

Unit II-D & E (3 1/2 weeks) [SC5]

- D. Product Pricing and Outputs Both in the Individual Firm and in the Market
 - 1. Perfect competition
 - 2. Imperfect competition
 - a. monopoly
 - b. oligopoly and monopolistic competition
- E. Efficiency and Government Policy Toward Imperfect Competition

SC5—The course provides instruction in the nature and functions of product markets: Market Structures.

Performance Objectives

You must be able to:

- 1. Define maximization of profits.
- 2. Apply the concepts of marginal cost and marginal revenue to determine maximization of profits.
- 3. Understand and apply the rule $MR = MC$.
- 4. Understand the concept of minimization of losses.
- 5. Define the shutdown criterion.
- 6. For each market structure:
 - a. Define and explain the conditions under which it functions.
 - b. Construct marginal revenue/cost analyses to determine price and output.
 - c. Determine the short-run and long-run equilibrium.
 - d. Identify the short-run market supply curve.
 - e. Compare and contrast pricing and output between and among the firms.
 - f. Compare and contrast the demand curve and marginal revenue curve.
 - g. Compare and contrast allocative and technical (productive) efficiency among the firms.
 - h. Compare and contrast product differentiation among the firms.
 - i. Compare and contrast the degree of price discrimination among the firms.
 - j. Compare and contrast the effects of government regulation to make it more efficient.

Graphs

You must be able to:

- 1. Draw graphs and differentiate between a competitive firm and a competitive industry.
- 2. Draw graphs and correctly label a competitive firm that makes excessive profits, earns zero profits, and minimizes losses.
- 3. Draw a sequence of graphs that shows a competitive firm making excessive profits (or minimizing its losses) with a return to long-run equilibrium.
- 4. Draw and label a monopoly firm that makes excessive profits (and minimization of losses).

5. Draw a graph to illustrate the effects in output, price, and profits if the demand increases (or decreases) in a monopolistic firm.
6. Illustrate graphically the problems of monopoly inefficiency (allocative and technical).
7. Draw and label a monopolistic competitive firm and illustrate long-run equilibrium.

Unit III (2 weeks) [SC6]

III. Factor Markets

- A. Derived factor demand
- B. Determination of wages and other factor prices
 - 1991 AP Exam, minimum wage impact on competitive industry
 - 1994 AP Exam, entry of new workers into labor market and derived demand; a reduction in demand for product; use of minimum wage; and how minimum wage affects a typical firm
 - 1991 and 1994 AP Exams, explain relationship between MRC and MRP
 - 1995 AP Exam, how a price change in product affects MRP, wage rates, and quantity of workers
 - 1997 AP Exam, calculation of MRP; draw supply and demand curve for labor for a firm; determine number of workers to be hired, effects of a change in the price of the commodity on the number of people hired; understand MRC

SC6—The course provides instruction in factor markets.

Performance Objectives

You must be able to:

1. Explain the concept of derived demand.
2. Calculate and explain the quantity of labor or a resource to be hired/bought by a firm.
3. Construct a short-run demand schedule for a resource.
4. Calculate and explain the relative amounts or proportions a producer should acquire of two or more resources.
5. Explain the relationship between MP and the demand for an input.
6. Explain and apply the concept of least-cost combination of inputs to novel data.
7. Explain and apply the rule for finding least-cost combination.
8. Explain how the marginal productivity theory of resource demand applies to wage rate determination.
9. Explain how the wage rate is determined.
10. Calculate and determine wage rates in a competitive labor market and in a monopolistic labor market.
11. Explain the concept of bilateral monopoly.
12. Explain the purpose of labor unions and their organization.
13. Explain the effects of unions and specific union tactics on wages and employment in both competitive and monopolistic markets.
14. Evaluate the efficiency of specific legislation aimed at increasing wage rates and employment.
15. Distinguish between pure economic rent and quasi rent.
16. Distinguish between nominal and real interest rate.

Graphs

You must be able to:

1. Draw and illustrate a demand curve for labor.
2. Draw and illustrate a supply curve for labor in a single competitive firm and a competitive market.
3. Draw and illustrate an effective minimum wage.
4. Draw and illustrate the supply-and-demand curve for labor in a monopsonistic market.
5. Draw and illustrate the various effects of labor union negotiations on wages and employment in a monopsonistic industry.

Unit IV (1/2 week) [SC7]

IV. Efficiency, Equity, and Role of Government

- A. Market failures
 1. Externalities
 2. Public goods
- B. Distribution of income
 - 1995 AP Exam, identification of an externality problem and how a sales tax on a good affects prices, quantity, after-tax revenues, and efficiency
 - 1997 AP Exam, use marginal analysis to regulate an industry that generates negative externalities

SC7—The course provides instruction in market failure and the role of government in correcting market failure.

Performance Objectives

You must be able to:

1. Define and explain the effects of price ceilings and price supports.
2. Identify potential areas of market failures (externalities and spillovers).
3. Define and explain public goods.
4. Identify economic functions of government in a market economy.

Graphs

You must be able to:

1. Illustrate the effects of externalities and spillovers on a supply/demand graph.
2. Illustrate the effects of a government regulation on producers and/or consumers.
3. Illustrate price ceilings and floors.