CollegeBoard AP

SYLLABUS DEVELOPMENT GUIDE

AP® Microeconomics

The guide contains the following sections and information:

Curricular Requirements

The curricular requirements are the core elements of the course. A syllabus must provide clear evidence of the requirement based on the required evidence statement(s).

Required Evidence

These statements describe the type of evidence and level of detail required in the syllabus to demonstrate how the curricular requirement is met in the course.

Note: Curricular requirements may have more than one required evidence statement. Each statement must be addressed to fulfill the requirement.

Clarifying Terms

Highlight and define terms in the scoring guide that may have multiple meanings.

Samples of Evidence

For each curricular requirement, three separate samples of evidence are provided. These samples provide either verbatim evidence or clear descriptions of what acceptable evidence could look like in a syllabus.

Curricular Requirements

CR1	The students and teacher have access to a college-level macroeconomics textbook.	*See page:* 3
CR2	The course provides opportunities to develop student understanding of the big ideas of the course.	*See page:* 4
CR3	The course provides opportunities to develop student understanding of the required content outlined in each of the units described in the AP Course and Exam Description (CED).	*See page:* 6
CR4	The course provides opportunities for students to develop the skills in Skill Category 1: Principles and Models.	*See page:* 10
CR5	The course provides opportunities for students to develop the skills in Skill Category 2: Interpretation.	*See page:* 11
CR6	The course provides opportunities for students to develop the skills in Skill Category 3: Manipulation.	*See page:* 12
CR7	The course provides opportunities for students to develop the skills in Skill Category 4: Graphing and Visuals.	*See page:* 13

Curricular Requirement 1

The students and teacher have access to a college-level microeconomics textbook.

Required Evidence

- ☐ The syllabus must cite a **college-level** microeconomics textbook.

Samples of Evidence

1. The syllabus sufficiently cites (author, title, and edition) textbooks or materials included in College Board's Example Textbook List.

2. A full citation for a college-level microeconomics textbook is included in the syllabus—e.g., Last Name, First Name. *Principles of Microeconomics.* 2nd ed. City: Publisher, 2019.

3. The syllabus makes reference to a college-level textbook and includes the ISBN so that the book can be easily located by the reviewer—e.g., Author's *Principles of Microeconomics* (ISBN: 1234567890).

Curricular Requirement 2

The course provides opportunities to develop student understanding of the big ideas of the course, as outlined in the AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must explicitly list each of the big ideas.

  AND

- ☐ Either in a statement and/or through a brief description of activities, the syllabus must identify one big idea and then demonstrate how it is covered in **multiple units** of the course.

Samples of Evidence

1. The big ideas addressed in the course are: scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; market inefficiency and public policy.

   Production choices and behavior is a focus of Units 3, 4, and 5. In Unit 3, students will be introduced to the goal of profit maximization in the context of the perfect competition model. They will then revisit the goal of profit maximization in the context of imperfectly competitive markets in Unit 4 and in the context of factor markets in Unit 5.

2. AP Microeconomics Big Ideas:

   - Scarcity and Markets (MKT)
   - Costs, Benefits, and Marginal Analysis (CBA)
   - Production Choices and Behavior (PRD)
   - Market Inefficiency and Public Policy (POL)

   The big idea MKT is taught through a series of activities in Units 1 and 2.

   Unit 1:

   - The links and smiles activity allows students to collect their own data to construct a PPC illustrating scarcity, the connection between specialized resources and increasing opportunity cost, and the opportunity cost of moving along the PPC.
   - The human PPCs activity lets students work collaboratively to discuss and demonstrate the impact of changes in factors of production, preferences, recession, etc.
   - The comparative advantage experiment is a competition between pairs of trading partners competing to be one of the first few pairs to achieve the objective of EACH trading partner in the pair being able to consume outside his or her PPC. Students experiment with different production points and trading ratios to discover that they must produce according to their comparative advantage and find mutually beneficial terms of trade to achieve the objective. This moves students conceptually from scarcity and opportunity cost to markets and prices.

Unit 2:

- An online trading game allows the collection of data to build demand and supply schedules, illustrate the laws of supply and demand, and determine how equilibrium is established. A subsequent worksheet shows how the horizontal summation of individual demand and supply curves creates market demand and supply.
- The human supply and demand activity lets students build on their understanding of markets by working in collaborative groups to discuss and demonstrate the impact of events that shift a curve or move along a curve as well as the impact on equilibrium price and quantity.
- A scavenger hunt allows students to practice calculating and interpreting elasticity coefficients. Applying the total revenue test allows another insight into markets. Finally, calculations of consumer and producer surplus provide deeper insight into the efficiencies generated by market equilibrium.

3. The following big ideas are woven throughout the teaching of the course: scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and, market inefficiency and public policy.

   Example: Costs, Benefits, and Marginal Analysis

   - Unit 1: Economic actors seek to maximize their own welfare (profits for producers, utility for consumers) and achieve this goal when they have the maximum net benefit, i.e., when total benefit exceeds total cost by the largest amount possible. This occurs when marginal benefit equals marginal cost. Consumer choice theory demonstrates the use of marginal analysis to maximize total welfare by equalizing the marginal utility per dollar of the last unit purchased of a range of products.
   - Unit 3: Marginal analysis also applies to producers. Entry and exit decisions are made based on the presence of positive or negative economic profits (i.e., MB of entry > MC when economic profits are positive). The decision of whether to shut down or produce is based on marginal analysis. Finally, producing firms profit maximize (or loss minimize) when they produce until MR = MC.

Curricular Requirement 3

The course provides opportunities to develop student understanding of the required content outlined in each of the units described in AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must include an outline of course content by unit and topic using any organizational approach that demonstrates the inclusion of **all** required course topics listed in the curriculum framework of the CED. Each unit should be aligned with the course's required textbook.

Note: Even if a syllabus follows the unit and topic structure provided in the CED, the syllabus must specify the alignment of each unit with the course's required text(s).

Clarifying Terms

Topics: Teachable segments broken down in each unit in the AP Course and Exam Description.

Samples of Evidence

1. The course is structured following the unit and topic structure provided in the CED. The chapters from the course text—Made-up-author's *Principles of Microeconomics*—are included in the outline below.

   Unit 1: Basic Economic Concepts (Made-up-author's *Principles of Microeconomics*, Chapters 1–2)

   1.1. Scarcity

   1.2. Resource Allocation and Economic Systems

   1.3. Production Possibilities Curve

   1.4. Comparative Advantage and Trade

   1.5. Cost-Benefit Analysis

   1.6. Marginal Analysis and Consumer Choice

   Unit 2: Supply and Demand (Made-up-author's *Principles of Microeconomics*, Chapters 3–4)

   2.1. Demand

   2.2. Supply

   2.3. Price Elasticity of Demand

   2.4. Price Elasticity of Supply

   2.5. Other Elasticities

   2.6. Market Equilibrium and Consumer and Producer Surplus

   2.7. Market Disequilibrium and Changes in Equilibrium

   2.8. The Effects of Government Intervention in Markets

   2.9. International Trade and Public Policy

   Unit 3: Production, Cost, and the Perfect Competition Model (Sample - author's *Principles of Microeconomics*, Chapters 5–6)

   3.1. The Production Function

   3.2. Short-Run Production Costs

   3.3. Long-Run Production Costs

3.4. Types of Profit

3.5. Profit Maximization

3.6. Firms' Short-Run Decisions to Produce and Long-Run Decisions to Enter or Exit a Market

3.7. Perfect Competition

Unit 4: Imperfect Competition (Sample author's *Principles of Microeconomics*, Chapters 7–8)

4.1. Introduction to Imperfectly Competitive Markets

4.2. Monopoly

4.3. Price Discrimination

4.4. Monopolistic Competition

4.5. Oligopoly and Game Theory

Unit 5: Factor Markets (Sample author's *Principles of Microeconomics*, Chapter 9)

5.1. Introduction to Factor Markets

5.2. Changes in Factor Demand and Factor Supply

5.3. Profit-Maximizing Behavior in Perfectly Competitive Factor Markets

5.4. Monopsonistic Markets

Unit 6: Market Failure and the Role of Government (Sample author's *Principles of Microeconomics*, Chapters 10–11)

6.1. Socially Efficient and Inefficient Market Outcomes

6.2. Externalities

6.3. Public and Private Goods

6.4. The Effects of Government Intervention in Different Market Structures

6.5. Inequality

2. **Unit 1: Introductory Concepts** (Mankiw's *Principles of Economics*, Ch. 2–4)
   - Scarcity & Factors of Production
   - Economic Systems
   - Production Possibilities Curve
   - Comparative Advantage & Gains from Trade
   - Supply & Demand Introduction: Equilibrium & Shifts

   Unit 2: S&D, Surplus, & Consumer Choice (Mankiw's *Principles of Economics,* Ch. 5–9 & 21)
   - Elasticity & Its Application
   - S&D with Government Policy
   - Consumer & Producer Surplus, Efficiency of Markets
   - Costs of Taxation
   - International Trade
   - Theory of Consumer Choice

   Unit 3: Firm Costs & Cost Curves (Mankiw's *Principles of Economics,* Ch. 13)
   - Accounting & Economic Profit
   - Production Function
   - Short and Long Run Costs
   - Total, Average, & Marginal Costs
   - Economies & Diseconomies of Scale

Unit 4: Perfect Competition (Mankiw's *Principles of Economics,* Ch. 14)

- Total, Average, & Marginal Revenue
- Profit Maximization
- Production Decisions in the Short Run
- Entry/Exit Decisions in the Long Run
- LR Supply: Increasing, Decreasing, & Constant Cost Industries

Unit 5: Monopoly (Mankiw's *Principles of Economics,* Ch. 15)

- Monopoly Structure
- Monopoly Marginal Revenue
- Natural Monopoly
- Price Discrimination
- Government Regulation

Unit 6: Imperfect Competition (Mankiw's *Principles of Economics,* Ch. 16–17)

- Monopolistically Competitive Structure
- Long Run Equilibrium
- Oligopoly Structure
- Game Theory

Unit 7: Factor Market (Mankiw's *Principles of Economics,* Ch. 18–19)

- Factor Market S&D
- Firm Profit Maximization in Factor Market
- Least Cost Factor Combinations
- Monopsony

Unit 8: Market Failure & Role of Government (Mankiw's *Principles of Economics,* Ch. 10–12, 20)

- Public Goods & Common Resources
- Externalities
- The Design of the Tax System
- Income Inequality

3. (The chapters noted below are from the required course textbook cited earlier in the syllabus.)

   Part 1: What is Economics?

   - ✓ First Principles (Chapter 1)
     - Individual choice
     - Scarcity
     - Opportunity cost
     - Economic systems
   - ✓ Economic Models (Chapter 2)
     - Trade-offs and production possibilities frontier
     - Trade and comparative advantage
   - ✓ The Consumer (Chapters 10–11)
     - Utility concept
     - Marginal analysis and consumer behavior
     - Budgets and optimal consumption

- From utility to the demand curve
- Consumer preferences and consumer choice
- Indifference curves

Part 2: Supply and Demand

- ✓ Supply and Demand (Chapter 3)
  - The demand curve
  - The supply curve
  - Equilibrium concept
  - Changes in supply and demand
- ✓ The Market Strikes Back (Chapter 4)
  - Price floors and price ceilings
  - Controlling quantities
- ✓ Elasticity (Chapter 5)
  - Price elasticity of demand
  - Price elasticity of supply
  - Other elasticities
- ✓ Consumer and Producer Surplus (Chapter 6)
  - Consumer surplus and the demand curve
  - Producer surplus and the supply curve
  - Consumer surplus, producer surplus, and the gains from trade

Part 3: Production, Cost, and Perfect Competition

- ✓ Inputs and Costs (Chapter 8)
  - Production function
  - Cost of production
  - Short-run versus long-run costs
- ✓ Perfect Competition and the Supply Curve (Chapter 9)
  - Production and profit
  - Economic profit
  - Perfect competition

Part 4: Market Structure Beyond Perfect Competition

- ✓ Monopoly (Chapter 14)
- ✓ Oligopoly (Chapter 15)
- ✓ Monopolistic competition (Chapter 16)

Part 5: Factor Markets and the Distribution of Income

- ✓ Introduction to Factors of Production (Chapter 17)
  - Marginal productivity and factor demand
  - Labor market
  - Non-labor markets
- ✓ Perfectly-Competitive v. Monopsonistic Markets (Chapter 18)

Part 6: Market Failure and Public Policy

- ✓ Externalities (Chapter 19)
- ✓ Public Goods and Common Resources (Chapter 20)
- ✓ Taxes, Social Insurance, and Income Distribution (Chapter 21)

Curricular Requirement 4

The course provides opportunities for students to develop the skills in Skill Category 1: Principles and Models, as outlined in the AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must provide a **brief description** of one or more instructional approaches (e.g., activity or assignment) describing how students will engage with one skill (either Skill 1.A, 1.B, 1.C, or 1.D) in Skill Category 1.
- ☐ Instructional approaches must explicitly label which skill(s) they address.

Important Considerations

A descriptive title can suffice as a brief description. If multiple examples are provided, only one needs to be correctly aligned to the skill referenced.

Samples of Evidence

1. **Skill 1.B:** After covering scarce economic resources, half of the students are asked to identify examples of the 4 economic resources they'd need to use to produce a 10-page research paper. The other half of the students identify examples of the four economic resources they'd need to use to cook a meal. Students are paired up to describe the examples they came up with and provide feedback to one another.

2. Students complete a worksheet that has them use data to calculate short-run production costs. **(Skill 1.C)**

3. **Skill 1.D**: Students create graphic organizers to represent the similarities and differences between different market structures.

Curricular Requirement 5

The course provides opportunities for students to develop the skills in Skill Category 2: Interpretation, as outlined in the AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must provide a **brief description** of one or more instructional approaches (e.g., activity or assignment) describing how students will engage with one skill (either Skill 2.A, 2.B, or 2.C) in Skill Category 2.
- ☐ Instructional approaches must explicitly label which skill(s) they address.

Samples of Evidence

1. Students complete a homework assignment from end-of-chapter questions that allows them to analyze which factors cause demand curves or supply curves to shift. **(Skill 2.A)**

2. **Skill 2.A:** Students are provided with graphs of market scenarios and asked to identify where the firm should operate in order to maximize profits, achieve allocative efficiency, and achieve other given outcomes.

3. **Skill 2.C:** Instructional Strategy: Systematic and Explicit Instruction, Model Questions

   The teacher demonstrates a specific strategy for interpreting 2 x 2 matrices in order to identify the Nash equilibrium (or equilibria). Students then apply that strategy using released AP Exam questions.

Curricular Requirement 6

The course provides opportunities for students to develop the skills in Skill Category 3: Manipulation, as outlined in the AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must provide a **brief description** of one or more instructional approaches (e.g., activity or assignment) describing how students will engage with one skill (either Skill 3.A, 3.B, or 3.C) in Skill Category 3.
- ☐ Instructional approaches must explicitly label which skill(s) they address.

Samples of Evidence

1. The syllabus describes a think-pair-share activity in which students are predicting changes to equilibrium price and quantity as a result of shifts in demand and/or supply, and the activity is tagged to **Skill 3.A**.

2. **Skill 3.A:** Flyswatter Review

   Various market supply and demand and firm cost curve shifts are drawn on posters placed on tables of pushed-together desks around the room. Groups of 4–5 students surround each poster. Each student has a flyswatter. The teacher reads a situation. Students swat the graph shift that correctly indicates the model showing the outcome of that situation. Only the first student to swat the correct model on each poster gets a point (i.e., the flyswatter that's under the others).

3. When studying the effect of government intervention in markets, the syllabus makes reference to an activity in which students calculate the effect of the imposition of taxes and subsidies on various market outcomes (e.g., price, quantity, government revenue/cost, and deadweight loss), and the activity is tagged to **Skill 3.C**.

Curricular Requirement 7

The course provides opportunities for students to develop the skills in Skill Category 4: Graphing and Visuals, as outlined in the AP Course and Exam Description (CED).

Required Evidence

- ☐ The syllabus must provide a **brief description** of one or more instructional approaches (e.g., activity or assignment) describing how students will engage with one skill (either Skill 4.A, 4.B, or 4.C) in Skill Category 4.
- ☐ Instructional approaches must explicitly label which skill(s) they address.

Samples of Evidence

1. The syllabus describes using released free-response questions as practice for students to draw graphs representing different market structures and tags the activity to **Skills 4.A** and **4.B**.

2. **Skills 4.A and 4.B: Graph Bowl**

   Student pairs pick a situation from a bowl and graph it on their white board. Students display their prompt and completed graph. One stays to explain it while the rest circulate to view other prompts and graphs. Halfway through the circle, the pairs switch roles.

   Graph Bowl: Perfect Competition

   I. Draw a profit-maximizing, perfectly competitive firm earning economic profits. Label the equilibrium price and quantity. Shade the area of economic profit.

   Graph Bowl: Perfect Competition

   II. Draw a profit-maximizing, perfectly competitive firm in long-run equilibrium. Label the equilibrium price and quantity. Indicate the area of total revenue and the area of total cost.

   Graph Bowl: Monopoly

   III. Draw a profit-maximizing monopoly earning economic profits under conditions of perfect discrimination. Label the equilibrium price and quantity. Show the area of producer surplus.

   Graph Bowl: Monopoly

   IV. Draw a profit-maximizing monopoly earning economic profit. Label the equilibrium price and quantity. Shade the area of economic profits. Label the price and quantity at which this firm would break even.

   Graph Bowl: Monopoly

   V. Draw a profit-maximizing monopoly earning economic profits. Label the equilibrium price and quantity. Label the price and quantity at which this firm would achieve allocative efficiency.

   Graph Bowl: Monopoly

   VI. Draw a profit-maximizing monopoly earning economic profits. Label the equilibrium price and quantity. Shade the area of deadweight loss.

3. The syllabus describes using whiteboards in class as a formative assessment technique to check students' ability to draw graphs representing positive and negative externalities and to then show on their graphs the effect of different policy interventions. The activity is tagged to **Skills 4.B** and **4.C**.