PUBLIC SCHOOLS OF EDISON TOWNSHIP DIVISION OF CURRICULUM AND INSTRUCTION

AP ECONOMICS

Length of Course:	Full Year
Elective/Required:	Elective
School:	High School
Student Eligibility:	<u>Grades 11-12</u>
Credit Value:	5 Credits
Date Approved:	August 24, 2015

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Modifications will be made to accommodate IEP mandates for classified students.

Statement of Purpose

The Edison Public School District is committed to improving instruction and providing the most challenging academic opportunities for our students. The district has recently restructured the Business Department curriculum in order to provide students with expanded opportunities in college and career after high school, and as part of that restructuring has added an Advanced Placement Micro/Macro Economics course. In one year, the AP Economics Course will cover two courses in economics: AP Macroeconomics and AP Microeconomics, each corresponding to one semester of a typical introductory college course in economics. The course is aligned with the College Board and completion of the course will prepare students to take the AP exams.

AP Macroeconomics focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students are provided with a thorough understanding of the principles of economics and how economists use those principles to examine aggregate economic behavior. Students learn how the measures of economic performance, such as gross domestic product (GDP), inflation, and unemployment are constructed and how to apply them to evaluate the macroeconomic conditions of an economy. The course recognizes the global nature of economics and provides ample opportunities to examine the impact of international trade and finance on national economies. Various economic schools of thought are introduced as students consider solutions to economic problems.

AP Microeconomics focuses on the principles of economics that apply to the functions of individual decision-makers, both consumers and producers, including individual households and firms, within the economic system. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. The course examines the theory of consumer behavior, the theory of the firm, and the behavior of profit-maximizing firms under various market structures. Students evaluate the efficiency of the outcomes with respect to price, output, consumer surplus, and producer surplus. They examine the behaviors of households and businesses in factor markets, and learn how the determination of factor prices, wages, interest and rent influence the distribution of income in a market economy. There are ample opportunities to consider instances in which private markets may fail to allocate resources efficiently and examine various public policy alternatives aimed at improving the efficiency of private markets.

The curriculum was created by: Jennifer Teboul, JP Stevens High School Lynne Tierney, Edison High School

Completed under the supervision of Mr. Joseph Ferrara, EHS Assistant Principal, and Dr. Anthony Shallop, JPS Assistant Principal.

Edison Township School District

Economics

Pacing Guide

UNIT	TIME FRAME	MP
Unit 1: Basic Economic Concepts	2 weeks	1
Unit 2: Supply & Demand	1.5 week	1
Unit 3: Measurements of Economic Performance	2 weeks	1
Unit 4: National Income & Price Determination	2 weeks	1
Unit 5: The Financial Sector	2 weeks	1
Unit 6: Inflation, Unemployment, & Stabilization Policies	2 weeks	1, 2
Unit 7: Economic Growth & Productivity	1.5 week	2
Unit 8: The Open Economy: International Trade	2 weeks	2
Unit 9: Demand – Consumer Behavior & Choice	2.5 weeks	2
Unit 10: Supply – Profit, Production, & Cost	2 weeks	2
Unit 11: Market Structures – Perfect Competition & Monopoly	2.5 weeks	2
Unit 12: Market Structures – Imperfect Competition	2.5 weeks	3
Unit 13: Factor Markets	1.5 week	3
Unit 14: Market Failure & Government Intervention	2 weeks	3
Review Period – Pre-AP Review and Practice	3-4 weeks	4
Post-AP Exam – Application of Economics Concepts (Projects, Presentations, Debates)	4 weeks	4

Unit One: Basic Economic Concepts

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 1, 2, 3, 4, 5, 6, 7, 8, 9

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Define economics and the features of the economic perspective
- Distinguish microeconomics from macroeconomics and positive economics from normative economics
- Explain the individual's economizing problem and how trade-offs, opportunity costs, and attainable combinations can be illustrated with budget line
- Apply production possibilities analysis, increasing opportunity costs, and economic growth
- Explain how economic growth and international trade increase consumption possibilities
- Understand graphs, curves and slopes as they relate to economics

Essential Questions:

- What is the relationship between scarcity, choice, and opportunity cost?
- How do you define and display a production possibilities curve?
- How does the concept of comparative advantage and terms of trade define the basis of trade?
- How do countries choose an economic system?
- How does the market system answer the five fundamental questions of what to produce, how to produce, who obtains the output, How to adjust to change, and how to promote progress?
- What is the same/different between laissez-faire capitalism, the command system, and the market system?
- What roles do incentives and property rights play in a mixed market model?
- What is the "Invisible Hand?" Why do market economies usually do a better job than command economies at efficiently transforming economic resources into desirable output?
- Why is marginal thinking the central idea of microeconomics?

Unit Assessment:

Unit One: Basic Economic Concepts (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	 The definition of economics and features of the economic way of thinking. The role of economic theory. How to distinguish microeconomics from macroeconomics and positive economics from normative economics. The basic principles of economic reasoning. The economizing problem, and the role of trade-offs and opportunity costs. The factors of production The definitions and applications of scarcity, choice, and cost. How to define and calculate opportunity costs. 	 Construct, label, and interpret a budget constraint curve. Construct, label, interpret, and manipulate a production possibilities curve. Illustrate the effects of economic growth and trade on a production possibility graph. Graphically illustrate the optimal allocation of resources (MB = MC). Analyze a production possibilities curve for economic growth 	Possible activities: - scarce chairs experime nt - market structures simulation - business cycle stations - I, Pencil movie	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Class participation Lesson quizzes Group projects Homework Class participation

AP ECONOMICS

Unit One: Basic Economic Concepts (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be	Activities/Strategies Technology Implementation/	Assessment Check Points
	 How to explain and apply marginal analysis. How to construct and interpret a production possibilities curve How economic growth and international trade can increase consumption possibilities. The difference between laissez faire capitalism, the command system, and the market system. The main characteristics of the market system. The fundamental economic questions (what, how, and for whom to produce). How to explain and apply the operation of the "invisible hand." How to define and calculate comparative and absolute advantage and terms of trade. 	able to do.	Interdisciplinary Connections	

Unit One: Basic Economic Concepts (cont.)

Cumulative Progress Indicators	Core Content Obje	jectives Instructional Actions		tions
	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	 17. How to define and apply the terms productive and allocative efficiency. 18. The ways in which economic growth is measured. 19. The phases of the business cycle. 			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
- Mr. Clifford Videos
- AP Teacher Community Resources
- Practice with AP Economics Test Prep Books

Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

- Advise students to be careful when they see terms they think they already know, because economists have special meanings for many terms. ie: questions on the AP exam generally use the term "capital" to refer to the category of factors of production made up of manufactured goods used to make other goods and services. Don't confuse this type of capital with "financial capital" such as money, stocks and bonds.

Unit Two: Supply and Demand

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 2, 8, 9, 10, 14, 16, 17, 18

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Characterize and give examples of markets
- Describe demand in words and graphs and explain how it can change
- Describe supply in words and graphs and explain how it can change
- Relate how supply and demand interact to determine market equilibrium
- Explain how changes in supply and demand affect equilibrium prices and quantities
- Identify price ceilings and price floors and how they cause product surpluses and shortages

Essential Questions:

- What is "demand" and how can it change? Why does a demand curve slope downward?
- What is "supply" and how can it change? Why does the supply curve slope upward?
- How do supply and demand interact to determine market equilibrium?
- How do changes in supply and demand affect equilibrium prices and quantities?
- What are government-set prices? How can they cause product surpluses and shortages?

Unit Assessment:

	Core Content O	nt Objectives Instructional Actions		actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5	 How to characterize and describe a variety of markets. How to define demand and supply, and explain 	 Construct and label a supply and demand graph. Depict changes in supply and demand. 	Possible activities: - Supply and demand market simulation Debate on the effectiveness of	Neat, clear, accurately and completely labeled graphs. FRQs from

Unit Two: Supply and Demand (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know. how it can change.	Skills What students will be able to do. a. Illustrate a change	Activities/Strategies Technology Implementation/ Interdisciplinary Connections real- world price	Assessment Check Points previous AP
6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.2.12.C.5 6.3.12.C.1	 The determinants of demand and determinants of supply. How to illustrate supply and demand through schedules and graphs. How to differentiate between a change in supply/demand a change in quantity supplied/demanded. The causes of shifts in supply and demand. How to describe how supply and demand interact to determine market equilibrium. How to assess the impact of changes in supply and demand on the equilibrium price and quantity in the market. Normal goods, inferior goods, substitutes, and complements. 	in demand or supply. b. Illustrate a change in quantity demanded or quantity supplied. 3. Depict the effect of a price ceiling or a price floor in the market	ceilings and price floors.	exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Two: Supply and Demand (cont.)

	Core Content Objectives		Instructional Ac	ctions
Cumulative Progress	Concepts	Skills	Activities/Strategies	Assessment
Indicators	What students will know.	What students will be	Technology Implementation/	Check Points
		able to do.	Interdisciplinary Connections	
	10. The definitions and			
	implications of			
	surpluses and shortages			
	in the market			
	11. How to define price			
	controls in the market, and			
	evaluate their impacts.			
	12. How to compute			
	equilibrium price and			
	quantity from data, using			
	graphs.			
	13. How to evaluate the impact			
	of government controls on			
	market efficiency.			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. Economics by Example 2nd Edition. New York: Worth, 2015.
- Mr. Clifford Videos
- AP Teacher Community Resources
- Practice with AP Economics Test Prep Books

Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

- When shifting curves, left is less and right is more.
- Students may confuse which situations result in movement along a curve vs a shift in the curve itself.
 ie: It would be correct to say that an increase in the price of apples decreases the quantity of apples demanded. It would be incorrect to say that an increase in the price of apples decreases the demand for apples.

Unit Three: Measurements of Economic Performance

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 11, 12, 13, 15, 16, 17, 18, 19, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Explain how Gross Domestic Product (GDP) is defined and calculated
- Describe the relationships among GDP, net domestic product, national income, personal income, and disposable income
- Discuss the nature and function of a GDP price index.
- Illustrate how unemployment is measured.
- Analyze measures of inflation.
- Explain why economists focus on GDP, inflation, and unemployment when assessing the health of an entire economy
- Identify the general supply, demand, and efficiency forces that give rise to economic growth
- Discuss differing perspectives as to whether economic growth is desirable and sustainable

Essential Questions:

- In what ways are national income statistics useful?
- Why is an economy measured by market value of goods rather than physical volume of production?
 Why do economists include only final goods and services when measuring GDP? How can you differentiate between intermediate and final goods?
- What is a price index?
- What is the difference between Nominal and Real GDP?
- What are some limitations of the GDP measure?
- How is unemployment measured? What is the difference between frictional, structural and cyclical unemployment?
- How is inflation measured? Can you distinguish between cost-push inflation and demand-pull inflation?
- Is there a tradeoff between lower rates of unemployment and higher rates of inflation?
- Is economic growth always desirable? Sustainable?

Unit Assessment:

Unit Three: Measurements of Economic Performance (cont.)

on communications	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators Concepts What students will know. 1. How to draw and interpret the circular flow model. 2. How GDP, inflation, and unemployment are used to assess the health of the economy as a whole. 3. How to define Gross Domestic Product and explain how it is calculated. 4. How to examine the expenditure and income approach to calculating GDP. 5. The relationship between GDP, net domestic product, national income, personal income, and disposable income. 6.2.12.C.1 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1 9. How unemployment is measured and how to explain the various types of unemployment. 9. How to calculate the	Skills What students will be able to do. 1. Illustrate the flow of goods and services, resources, and money through the circular flow diagram. 2. Calculate GDP using the expenditure approach and the income approach. 3. Calculate the unemployment rate. 4. Calculate the labor force participation rate. 5. Calculate inflation rate. 6. Calculate CPI and PPI.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections Possible activities: - Circular flow model physical simulation - Unemployment calculations classroom simulation	Assessment Check Points Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation	

Unit Three: Measurements of Economic Performance (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress	Concepts	Skills	Activities/Strategies	Assessment
Indicators	What students will know.	What students will be	Technology Implementation/	Check Points
		able to do.	Interdisciplinary Connections	
	10. How to find the full employment			
	level of GDP.			
	11. What inflation is and how to			
	measure it.			
	12. The impact of inflation on the			
	economy.			
	13. How to calculate and interpret			
	Consumer Price Index and			
	Producer Price Index.			
	14. How to use price indices to			
	calculate real wages and real			
	interest rates.			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

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York: Worth Publishers, 2015.

- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National

Council for Economic Education.

- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
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Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

- While there are three ways to calculate GDP (value- added, income, expenditure), the first two are very rarely tested on the AP.
 Thoroughly teach the expenditure approach.
- Economists use many different types of abbreviations, and different sources used in the classroom may thus be confusing to students.
 The AP typically uses the following:
 - (X IM)
 - (X M)

Unit Four: National Income & Price Determination

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 11, 12, 13, 15, 16, 17, 18, 19, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Distinguish between a change in aggregate demand and a change in the price level that causes a movement along the aggregate demand curve
- Distinguish between a change in aggregate supply and a change in the price level that causes a movement along the aggregate supply curve
- Show how the shape of the aggregate supply curve differs between the short run and the long run.
- Determine the potential (or full-employment) level of output
- Demonstrate the effects of expansionary or contractionary fiscal policy on price levels, aggregate demand, and real GDP
- Determine the size of a tax multiplier and assess its impact on aggregate demand.
- Understand the differences between discretionary fiscal policy and automatic stabilizers

Essential Questions:

- How does the consumption function relate to disposable income?
- How do the determinants of investment spending affect GDP?
- How can you determine the size of the spending multiplier?
- What impact does a specific spending multiplier have on aggregate demand spending?
- What are the determinants of aggregate demand?
- What are the determinants of aggregate supply?
- How is equilibrium defined using an AD-AS graph?
- Why does a tax multiplier have a smaller effect on GDP than the spending multiplier from transfer payments?

Unit Assessment:

Unit Four: National Income & Price Determination (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.3.12.C.1	 How to Identify and classify main categories of government spending and revenue. How to describe how changes in income affect both consumption and saving. How to calculate the marginal propensity to consume (MPC) and the marginal propensity to save (MPS). How to calculate and interpret the spending multiplier. What aggregate demand is and the factors that underlie it. The factors that shift aggregate demand. What aggregate supply is and how it differs in the short run and the long run. The factors that shift aggregate supply. How to determine equilibrium price level and output (real GDP) using the aggregate 	 Graphically illustrate the relationship between consumption and disposable income. Construct a consumption schedule and a saving schedule. Graph aggregate supply and aggregate demand to find equilibrium price level and level of output. Graph aggregate supply in the short run and the long run. Graph expansionary and contractionary fiscal policy actions on the aggregate supply and demand 	Case studies Race to the graph Formula bingo Guided reading	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Four: National Income & Price Determination (cont.)

	Core Content Obj	ectives	Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	demand and supply curve. 10. How to determine the potential or full- employment level of output. 11. How to use the Aggregate Demand - Aggregate Supply curve to explain periods of inflation and recession. 12. The definition of fiscal policy and the tools and purposes of fiscal policy actions. 13. The difference between expansionary fiscal policy with contractionary fiscal policy with contractionary fiscal policy. 14. How to determine the size of the tax multiplier and the spending multiplier and assess its impact on the aggregate demand - aggregate supply model. 15. The role of automatic stabilizers in the economy. 16. How to examine recent fiscal policy in the United States and make projections for the future.	curve. 6. Calculate the spending multiplier and the tax multiplier		

Unit Four: National Income & Price Determination (cont.)

Core Content Objectives		Instructional Actions	
Concepts	Skills	Activities/Strategies	Assessment
What students will know.	What students will be able to do.	Technology Implementation/ Check Points	
17. How to evaluate the issues the government may face in the enactment of fiscal policy.			
	Concepts What students will know. 17. How to evaluate the issues the government may face in the	Concepts What students will know. What students will be able to do. 17. How to evaluate the issues the government may face in the	Concepts What students will know. What students will be able to do. 17. How to evaluate the issues the government may face in the Skills What students will be able to do. Activities/Strategies Technology Implementation/Interdisciplinary Connections

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
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Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

 There are no calculators or formula sheets allowed in the AP exam, so students must memorize the formula for MPC as well as all other formulas in this course.

Unit Five: The Financial Sector

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 10, 11, 12

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Explain how the three tasks of a financial system bring forth efficiency in the financial markets
- Describe how a bank creates money and increases the money supply, and how the monetary base defines the money multiplier
- Explore how the Federal Reserve System acts as a central bank for the US.
- Compare how the Fed responded to banking crises in the Great Depression, the 1980s, and in 2008.
- Explain how the concept of present value can help one make decisions when costs or benefits materialize in the future
- Describe how crowding out leads to a decrease in invesmtne spending

Essential Questions:

- What are the four types of financial assets, and how do they differ in purpose?
- What is the function of money?
- How do you measure the supply of money?
- How does a bank create money?
- What is the Federal Reserve System?
- How does the Fed respond to crises in the banking system?
- What is money demand and what are the factors that shift the money demand curve?
- How is the equilibrium interest rate determined in the money market?
- How does the loanable funds market match savers and investors?

Unit Assessment:

Unit Five: The Financial Sector (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do. 1. Draw and label the	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	 The basic functions of money. The components of the United States money supply (M1, M2). How to explain what backs the money supply in the United States. How to explain the functions of the Federal Reserve System, and identify its components. The Federal Reserve's role in setting monetary policy in the UnitedStates. The main causes of the financial crisis of 2007 - 2008. The actions of the U.S. Treasury and the Federal Reserve in response to the crisis of 2007 - 2008. The meaning behind a "fractional reserve" banking system. The difference between a bank's 	supply and demand curves in a loanable funds market. 2. Graphically illustrate the crowding out effect 3. Draw and label the demand for money, the supply of money, and the equilibrium interest rate. 4. Graphically illustrate expansionary monetary policy and contractionary monetary policy, as it relates to the amount of money demanded and supplied, the real interest rate, real GDP, and price level.	Possible activities: - Model an FOMC meeting and debate on the appropriate Federal Funds Rate Target. - Money creation simulation. - Fiscal/monetary policy debates.	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Five: The Financial Sector (cont.)

	Core Content Object	ctives	Instructional Ac	ctions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	actual reserves and its required reserves. 10. How a bank can create money. 11. How to define the money multiplier, calculate it, and explain how it works. 12. How to determine the equilibrium interest rate in the market for money. 13. The goals of monetary policy and the tools it uses to achieve those goals. 14. How to define the federal funds rate and describe how the Federal Reserve influences it. 15. The role of the FOMC in setting the federal funds rate target. 16. The ways in which			
	monetary policy affects GDP and price level in the economy. 17. The limitations of monetary policy. 18. The definition of financial economics, and how to			

Unit Five: The Financial Sector (cont.)

	Core Content Objectives		Instructional Ac	ctions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be	Activities/Strategies Technology Implementation/	Assessment Check Points
	distinguish between economic	able to do.	Interdisciplinary Connections	
	and financial investment.			
	19. The time value of money, and how to calculate present and future value.			
	20. How to calculate compound interest.			
	21. How to compare and contrast forms of investment - stocks, bonds, and mutual funds.			
	22. How financial intermediaries help investors achieve diversification.23. What arbitrage is.			
	24. How to define interest and explain the causes of variation			
	in interest rates. 25. How to distinguish between nominal and real interest rates, and describe the Fischer effect			
	26. The loanable funds theory of interest rates.			
	27. How to explain and illustrate the crowding-out effect.			

Unit Five: The Financial Sector (cont.)

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition.* New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
- Mr. Clifford Videos
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Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

- Students may think the desirable quantity of money demanded is an infinite amount. Stress the opportunity cost of holding money in a picket or checking account to explain why that is not true.
- According to the authors of the Krugman text (2016), a deep exploration of financial assets and financial intermediaries is not required as it is unlikely to be tested.

Unit Six: Inflation, Unemployment, and Stabilization Policies

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Explore how the long-run implications of government deficit budgets and crowding out create concern
- Explain how implicit liabilities Social Security and Medicare pose problems for budget planners
- Show how expansionary and contractionary monetary policy affects interest rates, investment, AD, price level and real GDP in the short and long run
- Understand the differences between short and long run effects of fiscal and monetary policies
- Differentiate between classical and Keynesian views of economics

Essential Questions:

- How does the government calculate the cyclically adjusted budget?
- How does the size and burden of the national debt affect further budget planning?
- How does the Fed target the federal funds rate to change interest rates?
- What is the difference between expansionary and contractionary monetary policy?
- How do expansionary and contractionary monetary policies affect interest rates, investment, AD, price level, and real GDP in the short run? The long run?
- Why is the real quantity of money always at its long-run equilibrium in the classical model?
- Why are money holders punished when government prints money to pay for spending?
- How does cost-push inflation differ from demand-pull inflation?
- What does the short-run Phillips curve display?
- Is there a tradeoff between unemployment and inflation in the long run?
- What limits expansionary policy?
- Why is deflation a problem for policy makers?
- What is disinflation?
- What does the term "political business cycle" mean?

Unit Assessment:

Unit Six: Inflation, Unemployment, and Stabilization Policies (cont.)

	Core Content Ob	ojectives	Instructional Actions	
Cumulative Progress Indicators 6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5	Concepts What students will know. 1. The composition and implications of the U.S. public debt. 2. How the government calculates the budget. 3. How the Fed targets the	Skills What students will be able to do. 1. Draw and interpret the Phillips Curve. 2. Draw and interpret the Laffer Curve.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections Possible activities: - Economic research on present day challenges with a policy approach to addressing the issue.	Assessment Check Points Neat, clear, accurately and completely labeled graphs.
6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1	federal funds rate to change interest rates. 4. How expansionary and contractionary monetary policy affects interest rates, investment, aggregate demand, price level, and real GDP in both the short run and the long run. 5. How the classic model of the price level explains that the real quantity of money is always at long-	 3. Graphically illustrate the impact of monetary policy actions on the money supply and equilibrium interest rate. 4. Determine the appropriate monetary policy move in a given economic situation and assess its 		FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation
6.2.12.C.4 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	run equilibrium. 6. The difference between cost-push and demand-pull inflation. 7. How the unemployment Relates to the output gap.	impact. 5. Discuss the point- of- view of various economic schools of thought.		

Unit Six: Inflation, Unemployment, and Stabilization Policies (cont.)

	Core Content Obje	ectives	Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	 8. How the short-run Phillips curve shows the inverse relationship between unemployment and inflation. 9. The relationship between unemployment and inflation in the long- run (no trade-off exists). 10. The difference between the classical view and the Keynesian view. 11. How the monetarist view explains the monetary policy rule 			

Resources: Essential Materials, Supplementary Materials, Links to Best **Practices**

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
 Advanced Placement Microeconomics: Student Activities, 4th ed., New York:
- National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
- Mr. Clifford Videos
- **AP Teacher Community Resources**
- Practice with AP Economics Test Prep Books

Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

Unit Seven: Economic Growth & Productivity

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 15, 18

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Measure long-run economic growth
- Define the factors that stimulate long-run economic growth
- Understand how productivity is driven by physical and human capital, and technological progress
- Understand how changes in productivity are shown using an aggregate production function
- Show how economic growth has varied among regions of the world and why the convergence hypothesis applies to economically advanced countries
- Define factors to explain why long-run economic growth rates differ among countries
- Consider how the scarcity of natural resources and efforts to make growth sustainable pose challenges to growth
- Demonstrate how long-run economic growth is represented in macroeconomic models and how to model growth effects in these models

Essential Questions:

- How has real GDP changed over time? How has real GDP varied across countries?
- How is productivity driven by physical capital, human capital, and technological progress?
- How does an aggregate production function illustrate changes in productivity?
- What factors explain the difference between long-run growth rates in different countries?
- Is growth sustainable?
- How is long-run economic growth represented in macroeconomic models?

Unit Assessment:

Unit Seven: Economic Growth & Productivity (cont.)

	Core Content Ob	jectives	Instructional A	Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.5 6.1.12.C.5 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.15 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.3.12.C.1	 How to measure long- run economic growth. The factors that stimulate economic growth. How productivity is driven by physical capital, human capital, and technological progress. How to illustrate changes in productivity using the aggregate production function. How economic growth has varied around the world. Why the convergence hypothesis applies to economically advanced countries. Why long-run economic growth rates vary around the world. The various challenges to growth. 	 Calculate growth rates. Use the rule of 70 to calculate the number of years for the economy to double at a given rate of economic growth. Calculate GDP per worker and use it as an aggregate production function. Use growth accounting to estimate the contributions of factors to economic growth. Illustrate economic growth on the production possibilities curve. Illustrate long-run economic growth on the LRAS curve. 	Possible activities: - Race to the graph - Kahoots	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Seven: Economic Growth & Productivity (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress	Concepts	Skills	Activities/Strategies	Assessment
Indicators	What students will know.	What students will be	Technology Implementation/	Check Points
		able to do.	Interdisciplinary Connections	
	9. How long-run economic			
	growth is shown in			
	macroeconomic models.			
	10. How to model growth effects.			

Resources: Essential Materials, Supplementary Materials, Links to Best

Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed, New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
- Mr. Clifford Videos
- AP Teacher Community Resources
- Practice with AP Economics Test Prep Books

Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

- The AP exam does not test specifics of implicit liabilities like Social

Security and Medicare. Students need to know just that these and other programs are implicit liabilities and that they will add to the US debt as American demographics shift to an older population.

Unit Eight: The Open Economy: International Trade

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 3, 4, 5, 6, 7

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Record and analyze the balance of payments in accounts
- Create a loanable funds market graph to model international capital flows
- Explain how market forces and public policy affect currency demand and currency supply
- Model the equilibrium exchange rate using supply/demand analysis
- Show how changes in capital flows affect the balance of payments accounts
- Show how a fixed exchange rate system differs from a floating exchange rate system
- How to illustrate the effects of a tariff and an import quota

Essential Questions:

- What is the meaning of the balance of payments accounts?
- What are the determinants of international capital flows?
- What is the role of the exchange rate and the foreign exchange market?
- What is the difference between fixed exchange rates and floating exchange rates?
- What are the effects of currency devaluation and revaluation under a fixed exchange rate regime?
- How does macroeconomic policy affect exchange rates under a floating exchange rate regime?
- What are the effects of tariffs and import quotas?

Unit Assessment:

Unit Eight: The Open Economy: International Trade (cont.)

	Core Content O	bjectives	Instructional	Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points Neat, clear,
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	 The basic components of international trade. How to define comparative advantage, and explain the role of specialization and trade to increase a nation's output. How to analyze tariffs and quotas. How to explain protectionism. How to explain the exchange of currencies of different nations. How to define balance of payments and be able to discuss the components. How exchange rates are determined in markets with flexible exchange rates. How the balance of payments accounts are recorded and analyzed. How the loanable funds 	 Graph the production possibilities curve for two countries, and illustrate the gains from trade that could occur. Draw and label the U.S. export supply and import demand curve. Graph and label the equilibrium world price and quantity of exports and imports. Draw and label the supply and demand for foreign currency. Use the loanable funds market graph to illustrate international capital flows. 	Possible activities:	real, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Eight: The Open Economy: International Trade (cont.)

	Core Content Objectives		Instructional Actions		
Cumulative Progress Indicators	Concepts What students will know. market graph can be used	Skills What students will be able to do. 6. Model the foreign	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points	
	to model international capital flows. 10. How market forces and public policy affect currency demand and supply. 11. The difference between a fixed exchange rate system differs from a floating rate system. 12. The impact of currency appreciation and depreciation. 13. The causes and consequences of the U.S. trade deficit	exchange market and calculate equilibrium exchange rate. 7. Analyze the impact of tariffs and quotas on the market.			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition.* New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
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- Practice with AP Economics Test Prep Books

Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

 The foreign exchange market appears frequently on the AP exam. Students should be prepared to graph and explain this market in the free-response section

Unit Nine: Demand - Consumer Behavior & Choice

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 1, 2, 3, 4

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Use the income effect and substitution effect to explain the downward-sloping demand curve
- Examine elasticity as a measure of responsiveness to changes in price or income
- Calculate price elasticity of demand
- Differentiate between normal and inferior goods
- Calculate price elasticity of supply
- Calculate consumer and producer surplus
- Use total surplus to evaluate efficiency in markets
- Differentiate between efficiency and equity
- Show how taxes can affect total surplus and create deadweight loss
- Understand the principle of diminishing marginal utility

Essential Questions:

- What is the law of demand?
- How do you calculate the price elasticity of demand?
- What is the difference between elastic and inelastic demand?
- How does price elasticity change along a demand curve?
- What factors determine price elasticity of demand?
- How do you measure the responsiveness of demand for one good to changes in the price of another good?
- What is price elasticity of supply?
- What is a consumer surplus? How does it relate to the demand curve?
- What is a producer surplus? How does it relate to the supply curve?
- How do taxes affect total surplus?
- What is deadweight loss, and what are some reasons for it to occur?
- Why is a consumer's general goal to maximize utility?
- How do you use marginal analysis to find the optimal consumption bundle?

Unit Assessment:

Unit Nine: Demand - Consumer Behavior & Choice (cont.)

	Core Content Ol	ojectives	Instructional Actions	
Cumulative Progress Indicators 6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11	Concepts What students will know. 1. Why the income effect and substitution effect lead to a downward-sloping demand curve. 2. How to calculate price elasticity of demand, and explain its application. 3. The factors that determine price elasticity of demand. 4. The use of the total	<u> </u>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections Possible activities: - Mr. Clifford videos - Graphing scenarios	Assessment Check Points Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes
6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	revenue test in determining price elasticity. 5. How to calculate and interpret cross-price elasticity of demand and income elasticity of demand, and explain its application. 6. How to calculate price elasticity of supply and explain it as a measure of seller responsiveness to price	efficiency loss of a tax. 5. Graphically illustrate consumer surplus and producer surplus. 6. Graphically illustrate efficiency loss (or deadweight loss). 7. Calculate price elasticity of demand. 8. Calculate price elasticity of supply. 9. Calculate crossprice elasticity and		Group projects Homework Class participation

Unit Nine: Demand - Consumer Behavior & Choice (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	change. 10. The relationship between total utility, marginal utility, and the law of diminishing marginal utility. 11. How to use and apply the process of utility maximization and the supporting model. 12. How to construct and interpret marginal utility schedules and curves. 13. How to derive consumer demand schedules and curves. 14. How to apply the theory of consumer behavior to realworld phenomena. 15. How to explain the principles elating to tax efficiency and efficiency losses caused by taxes, as well as tax incidence. 16. The calculation and	income elasticity.		

Unit Nine: Demand - Consumer Behavior & Choice (cont.)

Cumulative Progress Indicators	Core Content Objectives		Instructional Actions	
	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	meaning of consumer surplus and producer surplus. 14. The use of total surplus to evaluate efficiency in markets. 15. The difference between efficiency and equity			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth. 2015.
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Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

 Consumer and producer surplus are represented as a triangle on a graph, and students may need to review how to calculate the area of a triangle (1/2bh)

Unit Ten: Supply - Profit, Production, and Cost

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 7, 8, 9

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Differentiate between implicit and explicit costs
- Calculate accounting profit, economic profit, and normal profit
- Use marginal analysis to determine the profit-maximizing level of output
- Define and calculate marginal and average costs
- Graph short-run costs (TC, FC, VC, ATC, AVC, AFC, MC)
- Know the shapes of the total, marginal, and average cost curves
- Differentiate between long-run and short-run
- Characterize perfect competition, monopoly, monopolistic competition, and oligopoly

Essential Questions:

- What are the differences between implicit and explicit costs?
- What is the difference between accounting profit, economic profit, and normal profit?
- How do you perform marginal analysis?
- How do you use the optimal output rule?
- What is the relationship between a quantity of inputs and quantity of outputs in a firm's production function?
- Explain the role of diminishing returns in production.
- What costs do firms face, and how do those costs generate marginal cost curves and average cost curves?
- How can a firm enjoy economies of scale?
- What are the four principle types of market structure?

Unit Assessment:

 Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson quizzes.

Unit Ten: Supply - Profit, Production, and Cost (cont.)

	Core Content Ob	jectives	Instructional A	Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	 How to define and calculate price elasticity of supply, and explain its application. Why economic costs include both implicit costs and explicit costs. How to differentiate between accounting profit, and normal profit and calculate all three. How to use marginal analysis to determine the profit-maxmizing level of output. How to connect the law of diminishing returns to a firm's production costs, and show how it is depicted by the total product and marginal product schedules. The terms: fixed costs, variable costs, total costs, average costs, and marginal costs. How to graph short-run cost curves. The shapes of the total, marginal, and average cost curves. 	 Graphically illustrate elasticity of supply in the immediate time period vs. in the long run. Construct and interpret a total product and marginal product schedule and curve, and use it to show the law of diminishing returns. Construct, label, and interpret total cost, total variable cost, total fixed cost, average total cost, average variable cost, average fixed cost, and marginal cost curves. Construct a longrun average total cost curve. 	Possible activities:	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

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Unit Ten: Supply - Profit, Production, and Cost (cont.)

	Core Content Obj	ectives	Instructional Ac	ctions
Cumulative Progress Indicators	Concepts What students will know. 9. How to differentiate between the short-run and long-run when it comes to costs. 10. How to explain economies of scale, constant returns to scale, and diseconomies of scale and discuss a firm's average costs in the long run. 11. How to construct cost curves and identify relationships between them 12. How to explain why economic profits occur. 13. How to find the optimal input mix and the cost- minimization rule. 14. The basic characteristics of perfect competition, monopoly, monopolistic competition, and oligopoly.	Skills What students will be able to do. 5. Find the optimal input mix by using the costminimization rule. 6. Use marginal analysis to determine the profit-maximizing level of output.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points

Unit Ten: Supply - Profit, Production, and Cost (cont.)

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition* New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. Economics by Example 2nd Edition. New York: Worth, 2015.
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- Practice with AP Economics Test Prep Books

Unit Eleven: Market Structures - Perfect Competition & Monopoly

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 9, 14, 15

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Explain price-taking behavior in perfect competition
- Graph the perfect competition model
- Determine profit, loss, and shut-down conditions and represent them on a perfect competition graph
- Show long-run equilibrium in perfect competition
- Display a firm's short-run supply curve in perfect competition
- Show the effect of changes in the market on perfectly competitive firms
- Graph price-making behavior and price maximization for a monopoly
- Compare price and output in a monopoly and perfect competition
- Understand and graph deadweight loss resulting from monopoly
- Explore natural monopoly and its regulation by government
- Define and graph price discrimination, and evaluate its effect on efficiency

Essential Questions:

- How do you know whether a competitive firm is profitable?
- Why does industry behavior differ between the short run and the long run?
- How do you determine the profit-maximizing price and quantity for a monopolist?
- How do policy-makers address the problems posed by monopoly?
- What is price discrimination?
- Why is price discrimination common when producers have market power?

Unit Assessment:

 Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson quizzes.

Unit Eleven: Market Structures - Perfect Competition & Monopoly (cont.)

	Core Content Ob	Core Content Objectives		Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.3.12.C.1	 Price-taking behavior that occurs in perfect competition. How and where profit maximization occurs in perfect competition. How to graph the perfect competition model. How to determine profit, loss, and shut- down conditions and graphically illustrate them for perfectly competition. How to find long-run equilibrium in perfect competition. The impact of changes in the market on perfectly competitive firms Price-making behavior that occurs in a monopoly market. How and where profit maximization occurs for a monopoly. How to determine profit, loss, and shut- down conditions and 	 Draw graphs for both a single firm and for the industry, and differentiate between the two. Construct a cost curve for a purely competitive firm in the short run and identify the breakeven point, shutdown point, and area of economic profit (or loss). Construct cost curves for a purely competitive firm in the long-run. Construct and label cost curves for a pure monopoly, and identify profitmaximizing output 	Possible activities	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

Unit Eleven: Market Structures - Perfect Competition & Monopoly (cont.)

	Core Content Obj	Core Content Objectives		ctions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	graphically illustrate them for a monopoly. 10. How to compare price and output in a monopoly and perfect competition. 11. How to compare efficiency in perfect competition vs. monopoly markets. 12. How to understand and graph deadweight loss resulting from a monopoly. 13. What a natural monopoly is and how it is regulated by the government. 14. The impact of price discrimination on efficiency. 15. The relationship between efficiency and price discrimination. 16. How to apply the concept of minimization of losses. 17. How to define and calculate the breakeven point.	and price. 5. Graphically illustrate total surplus with an unregulated natural monopolist and with a regulated natural monopolist.		

Unit Eleven: Market Structures - Perfect Competition & Monopoly (cont.)

	Core Content Obj	Core Content Objectives		etions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	 18. How to define and calculate the shutdown point. 19. How long-run equilibrium in pure competition leads to an efficient allocation of resources. 20. The types of monopolies, and the barriers to entry that are present in this type of market model. 			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition.* New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. Economics by Example 2nd Edition. New York: Worth, 2015.
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Instructional Adjustments: Modifications, student difficulties, possible misunderstandings

 On the AP exam, students should approach changes that have long-run repercussions one small step at a time. First, teach them to show the initial change on their graphs. Then analyze the short-run effects of that change. Finally, focus on the adjustments that lead to long-run equilibrium.

Unit Twelve: Market Structures - Imperfect Competition

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 9, 14, 15, 16, 17, 18, 19

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Understand the role of interdependence in oligopoly
- Differentiate collusive versus noncooperative behavior by firms
- Explore incentives to cheat on the success of collusive agreements
- Differentiate price competition versus quantity competition
- Use game theory to analyze firm behavior in a duopoly
- Understand and apply payoff matrices
- Explore the factors that limit tacit collusion to raise prices
- Understand how oligopolists are affected by price wars, product differentiation, price leadership, and nonprice competition in oligopoly markets
- Compare monopolistic competition to perfect competition and monopoly

Essential Questions:

- Why do oligopolists have an incentive to act in ways that reduce their combined profit?
- How do oligopolies benefit from collusion?
- How do you use a payoff matrix to analyze a prisoners' dilemma?
- What is a Nash equilibrium?
- What causes and results from price wars, product differentiation, price leadership, and nonprice competition?
- How do repeated interactions among oligopolists result in collusion in the absence of any formal agreement?
- How does monopolistic competition lead to inefficiency and excess capacity?

Unit Assessment:

• Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson quizzes.

Unit Twelve: Market Structures - Imperfect Competition (cont.)

	Core Content O	bjectives	Instructional	Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.3.12.C.1	 How to characterize oligopolies and monopolistically competitive markets. The role of interdependence in oligopoly. The difference between collusive and noncooperative behavior by firms. How collusion is used to raise joint profits for oligopoly firms. How incentives to cheat affect the success of collusive agreements. The difference between price competition and quantity competition. Understand the basics of game theory. How to interpret and apply payoff matrices. The prisoner's dilemma game, dominant strategies 	 Graph the cost curves and MR curve of amonopolistically competitive firm in the short run and the long run. Graphically illustrate the problem of inefficiency in monopolistic competition. Use a payoff matrix to determine dominant strategy and the Nash equilibrium. 	Possible activities: - Product differentiation activity - Game theory simulation	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

AP ECONOMICS

Unit Twelve: Market Structures - Imperfect Competition (cont.)

	Core Content Obj	ectives	Instructional Ac	ctions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	and the Nash equilibrium 10. How antitrust policies are used to prevent collusive actions by oligopolists. 11. How oligopolists are affected by price wars, product differentiation, price leadership, and nonprice competition. 12. How to determine profitmaximizing price and quantity in monopolistic competition in the short run and the long run. 13. How to identify the inefficiency caused by monopolistic competition. 14. How to identify product differentiation that occurs in monopolistically competitive firms. 15. Why monopolistic competition has neither productive nor allocative efficiency.			

Unit Twelve: Market Structures - Imperfect Competition (cont.)

	Core Content Ob	jectives	Instructional Ac	tions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	16. Why monopolistically competitive firms only earn a normal profit in the long run.			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition.* New

York: Worth Publishers, 2015.

- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National

Council for Economic Education.

- Anderson, David. Economics by Example 2nd Edition. New York: Worth, 2015.
- Mr. Clifford Videos
- AP Teacher Community Resources
- Practice with AP Economics Test Prep Books

Unit Thirteen: Factor Markets

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 9, 13, 18

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Define physical and human capital
- Explain the factor distribution of income between land, labor, capital, and entrepreneurship
- Graph marginal productivity and the MP curve
- Graph the MRP and factor demand curves
- Explore the labor supply curve for individuals and the market, and show equilibrium in the labor market
- Examine perfectly competitive and imperfectly competitive labor markets
- Explore theories of income distribution

Essential Questions:

- What differentiates markets for factors of production from factors of goods markets?
- How do factor markets determine the factor distribution of income?
- How does the demand for factors lead to the marginal productivity theory of income distribution?
- How does a worker's decision about time preference give rise to labor supply?
- How do firms determine the optimal input mix?
- What are the sources of wage disparities?

Unit Assessment:

• Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson guizzes.

Unit Thirteen: Factor Markets (cont.)

	Core Content Obj	jectives	Instructional	Actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.3.12.C.1	 The significance of resource pricing. How to explain the concept of derived demand. The marginal revenue productivity of a resource. How to demonstrate the MRP and the factor demand curves and illustrate shifts in these curves. How to show supply and demand in the markets for land and capital. The factors that increase and decrease demand for resources. How to find the determinants of elasticity of resource demand. How a firm selects the optimal combination of resources. How to calculate and explain the quantity of labor/resources a firm hires/purchases. How wage rates and employment levels are 	 Draw and label a firm's demand curve for a resource. Draw and label a labor supply and labor demand curve in both a perfectly competitive labor market and an imperfectly competitive market. Graphically illustrate the wage rate and level of employment in a monopsonistic labor market. Use the costminimization rule to determine the costminimizing combination of inputs. 	Possible activities: - Labor market simulation	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Simulations Homework Class participation

Unit Thirteen: Factor Markets (cont.)

	Core Content Obj	ectives	Instructional Ac	etions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	determined in competitive labor markets. 11. How to determine equilibrium in both a perfectly competitive and imperfectly competitive labor market. 12. How to find the costminimizing input combination and the optimal input mix. 13. How monopsony can reduce wages below competitive levels. 14. What economic rent is and how it is determined.			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

- Ray, Margaret and David Anderson. *Krugman's Economics for AP 2nd Edition*. New York: Worth Publishers, 2015.
- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National Council for Economic Education.
- Anderson, David. *Economics by Example 2nd Edition*. New York: Worth, 2015.
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- AP Teacher Community Resources
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Unit Fourteen: Market Failure and Government Intervention

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 16, 17, 18, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

- Define positive and negative externalities
- Examine the effect of externalities on efficiency in markets
- Explain and analyze externalities using the supply and demand model
- Critique government policy actions to address inefficiency resulting from externalities
- Explore the free-rider problem and determine the optimal level of government intervention
- Use marginal cost pricing and average cost pricing to regulate natural monopolies
- Analyze how income inequality has changed over time in the U.S.
- Explore how programs like Social Security and unemployment insurance affect income inequality

Essential Questions:

- What is an externality?
- Why do externalities often require government intervention? How can private individuals remedy externalities?
- What is the difference between a negative and a positive externality?
- Why are some government policies to deal with externalities efficient and others inefficient?
- What are public goods and why do markets fail to supply efficient quantities of public goods?
- Why is it difficult to find the right level of government intervention?
- What are the three major antitrust laws?
- What are the pros and cons of using marginal cost pricing and average cost pricing to regulate prices in natural monopolies?
- What are the causes and consequences of poverty?
- How has income inequality in America changed over time?

Unit Assessment:

• Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson quizzes.

Unit Fourteen: Market Failure and Government Intervention (cont.)

	Core Content Ob	Core Content Objectives		actions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.6 6.3.12.C.1	 Various causes of market failures. The definition of positive and negative and externalities. How to explain the effects of positive and on the allocation of resources. How to apply the Coase Theorem as a private solution to externalities. The use of the supply and demand model to explain and analyze externalities. What government policy actions exist to address the inefficiency resulting from externalities. How to characterize public and private goods on the basis of excludability and rivalry. How to describe free riding and public goods, and illustrate the issue presented when private markets allocate public goods. 	 Graphically illustrate the optimal amount of a public good. Graph the effects of negative and positive externalities on the market, and label the effect of underallocation or overallocation. Illustrate the effect of a government regulation on either producers or consumers. Graph, label, and interpret the Lorenz curve. 	Possible activities:	Neat, clear, accurately and completely labeled graphs. FRQs from previous AP exams Vocabulary assessments Lesson quizzes Group projects Homework Class participation

AP ECONOMICS

Unit Fourteen: Market Failure and Government Intervention (cont.)

	Core Content Ob	jectives	Instructional Ac	tions
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
	 What the tragedy of the commons is. The core elements of antitrust laws in the United States. The economic principles related to the setting of prices by natural monopolies. The definition of poverty and its consequences. How income inequality is measured in the United States. The causes and the impacts of income inequality. The equality and efficiency arguments behind income inequality. How to use the Lorenz curve and Gini coefficient to measure a country's level of income inequality. 			

Unit Fourteen: Market Failure and Government Intervention (cont.)

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

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York: Worth Publishers, 2015.

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Unit Fifteen: AP Economics Exam Review

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

• Demonstrate understanding of macro and micro economic concepts that will be tested on the AP exams

Essential Questions:

• On which content areas must I devote the most studying time?

Unit Assessment:

• Students will be assessed by their creation of neat, clear, accurately and completely labeled graphs; their logical and clear answers to Free Response Questions (FRQs) from previous AP exams; and their participation in class activities, as well as vocabulary and lesson quizzes.

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13	The content and concepts tested on the AP Exams. Macro: - Basic economic concepts - Measurement of economic performance - National income and price determination - Financial sector - Stabilization policies - Economic growth	Demonstrate ability to create neat, clear, accurate and completely labeled graphs. Provide logical and correct answers to FRQs from previous AP exams. Answer multiple choice questions from previous AP exams correctly.	Possible activities: - Kahoots for MC question warm-up - Timed questioning	Neat, clear, accurately and completely labeled graphs. Multiple Choice questions and FRQs from previous AP exams Timed exams

Unit Fifteen: AP Economics Exam Review (cont.)

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.14 6.1.12.C.15 6.1.12.C.16 6.2.12.C.1 6.2.12.C.2 6.2.12.C.3 6.2.12.C.4 6.2.12.C.5 6.2.12.C.5 6.3.12.C.1	Open economy: international trade and finance Micro: The nature and function of product markets Factor markets Market failure and the role of government			

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

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- Advanced Placement Microeconomics: Student Activities, 4th ed., New York: National

Council for Economic Education.

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Unit Sixteen: Explorations in Economics

Targeted Standards: Voluntary National Content Standards in Economics, Council for Economic Education: Standards 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Unit Objectives/Conceptual Understandings: (Students will be able to)

• Apply knowledge of economic concepts to real world scenarios

Essential Questions:

• How is economics applied in the real world?

Unit Assessment:

• Students will be assessed by their logical and clear application of economic concepts to current issues in the economy, as demonstrated through class and community activities.

	Core Content Objectives		Instructional Actions	
Cumulative Progress Indicators	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.1.12.C.1 6.1.12.C.2 6.1.12.C.3 6.1.12.C.4 6.1.12.C.5 6.1.12.C.6 6.1.12.C.7 6.1.12.C.8 6.1.12.C.9 6.1.12.C.10 6.1.12.C.11 6.1.12.C.12 6.1.12.C.13 6.1.12.C.14 6.1.12.C.15 6.1.12.C.15 6.1.12.C.16	Students will apply their knowledge of economic theory in projects for the remainder of class time following the AP exams	Application will vary depending on projects selected	Possible activities: - internship in community or school - "teacher for a day" - research paper - research presentation - music video - budget debates - mock congressional hearing	Application will vary depending on projects selected

Unit Sixteen: Explorations in Economics (cont.)

Cumulative Progress Indicators	Core Content Objectives		Instructional Actions	
	Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
6.2.12.C.1				
6.2.12.C.2				
6.2.12.C.3				
6.2.12.C.4				
6.2.12.C.5				
6.2.12.C.6				
6.3.12.C.1				

Resources: Essential Materials, Supplementary Materials, Links to Best Practices

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