

TAMALPAIS UNION HIGH SCHOOL DISTRICT  
Larkspur, California

Course of Study

**AP ECONOMICS**

**Overview:**

Title of Course: Advanced Placement Economics	
Course Author(s): Ann Tepovich	Schools where the course will be taught: Redwood and Drake
Length of Course: 1 Year: 1 Semester AP Macro-Economics & 1 Semester AP Micro-Economics	Subject Area and Discipline: Social Studies/ Economics
Grade Levels: 12	Is this course an integrated course? No
	Are you seeking UC approval? If so, in what area (A-G)? Yes, "G" status
Prerequisites (required or recommended): None	Co-requisites (required or recommended): None
Check all that apply: <input checked="" type="checkbox"/> UC A-G course ✓ <input checked="" type="checkbox"/> Graduation Requirement ✓ <input type="checkbox"/> Elective <input checked="" type="checkbox"/> Honors/AP ✓ <input type="checkbox"/> ROP	

**Introduction**

Course Overview: AP Economics is a two semester course that introduces students to economic theory as it can be applied to current trends and events. The first semester, AP Macro- Economics, is designed to give students a deep understanding of the economic principles as they apply to the economy as a whole. The second semester, AP Micro-Economics, is designed to give students a thorough understanding of the principles of economics that apply to the function of individuals, both consumers and producers in the economic system.

## Stage 1 Desired Results

### *Unit Title: Introduction to Economic Concepts (Macro)*

<p>ESTABLISHED LEARNING GOALS</p> <p>California State Standard: Economics 12.1, 12.2</p> <p>Advanced Placement Macroeconomics Course Description: Topic I, A-E Topic II, A. 1.</p> <p>National Voluntary Standards 1,2,3,5,6,7,8</p>	<b><i>Transfer</i></b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in economic cycles.</p>	
	<b><i>Meaning Making</i></b>	
	<p>UNDERSTANDINGS</p> <p>Advanced Placement Macroeconomics Course Description: Topic I, A-E Topic II, A. 1</p>	<p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What is the distinction between absolute and comparative advantage, and how do we apply the principle of comparative advantage to determine the basis on which mutually advantageous trade can take place?</li> <li>2. What are the functions performed by an economic system, and how are the tools of supply and demand used to analyze the workings of a free market economy?</li> <li>3. What is the business cycle and what are the basic causes of economic fluctuations?</li> </ol>
	<b><i>Acquisition</i></b>	
<p><i>Students will know...</i></p> <p>Scarcity, opportunity cost, comparative advantage, absolute advantage, incentives, property rights, 3 economic questions, 3 economic systems, Production Possibilities Frontier, specialization, trade-offs, supply and demand, market equilibrium,</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of</p>	

	determinants of demand and supply, Adam Smith, price floors and ceilings, Circular Flow Model	cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the economic cycle.
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This first unit is an introduction to the basic concepts of Economics and serves as a necessary foundation for future learning. In this unit students will learn about scarcity and opportunity costs, the function of economic systems, as well as apply the concepts and models of comparative and absolute advantage in the determination of trade. Additionally, students will learn the tools and models of supply and demand and how they are used to analyze the workings of a free market economy.

### Stage 2 - Evidence

Learning Goals Measured:  Advanced Placement Macroeconomics Course Description: Topic I. D	<b>Success Criteria</b> (e.g. Learning progression, rubric, proficiency scale, etc.)  Refer to College Board/Advanced Placement Rubrics & Scoring Guides
	<b>Sample Assessment</b> (e.g. Performance tasks, anchor of student work, common assessment etc.)  Given a series of real world scenarios or events, students will demonstrate their understanding of the laws of supply and demand by both manipulating the supply and demand model correctly and explaining the changes to the market as a result of the event in the given scenarios.

### Stage 3 – Learning Plan

Learning Goals Addressed: Advanced Placement Macroeconomics Course Description: Topic I. D.	<b>Sample Assignment:</b> Students will participate in a class activity known as “The Market in Wheat”. In this simulation, from the National Council of Economic Education, half the students are sellers of wheat and half are buyers and they interact with each other to set the price of the wheat with the goal of making profit. Students play this in rounds and through their multiple interactions, a “natural or market price” is set. Through this activity students are able to see how interaction between buyers and sellers sets a price in a market based economy. In the debrief students are asked to discuss their interactions and explain how they came to a “fair” price. Lastly, to check for understanding, students are asked to draw a supply and demand model showing market equilibrium at the price that was most common during the simulation.
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	<p><b>Differentiated Approaches:</b></p> <ol style="list-style-type: none"> <li>1. Think, pair, share before the class debrief</li> <li>2. Equity sticks for participation in the debrief</li> <li>3. Pair students together to complete the check for understanding (drawing the model) at the end of the class.</li> </ol>
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**Stage 1 Desired Results**

***Unit Title: Measuring Economic Performance***

<p>ESTABLISHED LEARNING GOALS:</p> <p>California State Standard: Economics 12.5</p> <p>Advanced Placement Macroeconomics Course Description: Topic II, A-C</p> <p>National Voluntary Standards: 15,18,19</p>	<b><i>Transfer</i></b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in economic cycles.</p>	
	<b><i>Meaning Making</i></b>	
	<p><b>UNDERSTANDINGS</b></p> <p><i>Refer to College Board Course Outline</i></p> <p>Topic II, A-C</p>	<p><b>ESSENTIAL QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. What are the key measurements of economic performance?</li> <li>2. What is Gross Domestic Product and how is it measured?</li> <li>3. What is the nature and causes of unemployment?</li> <li>4. What is inflation and how is it measured?</li> </ol>
	<b><i>Acquisition</i></b>	
	<p><i>Students will know...</i></p> <p>Gross Domestic Product, real vs nominal measures, GDP Deflator, CPI, types of unemployment, underemployment, natural rate of unemployment, consumer confidence, economic indicators, business cycle</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of</p>

		cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the economic cycle.
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The goal of this unit is to have students learn how to measure economic activity and how to determine an economy's place on the business cycle. In order to correctly measure economic activity, students need to understand a variety of economic indicators such as a GDP growth rate, CPI, Unemployment Rate, etc. and how those indicators are calculated and valued in real and nominal terms. Students will gain an understanding of the relationship between these indicators and how when analyzed together, the indicators can determine the relative health of an economy.

### Stage 2 - Evidence

<p>Learning Goals Measured:</p> <p>Advanced Placement Macroeconomics Course Description: Topic II, A 2-4, B 1-3, C 1-3</p>	<p><b>Success Criteria</b> (e.g. Learning progression, rubric, proficiency scale, etc.)</p> <p>Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers.</p>
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<p>Learning Goals Measured:</p> <p>Advanced Placement Macroeconomics Course Description: Topic II, A 2-4, B 1-3, C 1-3</p>	<p><b>Sample Assessment</b></p> <p>Individual written exam that requires students to examine data about an economy and calculate the data to create indicators that determine the unemployment rate, inflation rate and GDP growth rate and based on their answers they will articulate the connection between the indicators and what these indicators “state” about the economic performance of an economy. (See formative group assignment below.)</p>
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### Stage 3 – Learning Plan

<p>Learning Goals Addressed:</p> <p>Advanced Placement Macroeconomics Course Description: Topic II, A 2-4, B 1-3, C 1-3</p>	<p><b>Sample Assignment:</b></p> <p>Students will be given a fictitious economy that is presented to them as a set of economic indicators. Their task is to verbally articulate, as a group, the economic state of their economy in meetings with their instructor. In order to correctly explain their economy, they will have to do research to understand what the economic indicators they have been given measure and what they tell us about the measurement of economic activity. Additionally, they need to understand the acceptable range of their economic indicators and how the values of their economic indicators compare to what is considered to be a healthy and stable economy.</p>
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<p>Learning Goals Addressed:</p> <p>Advanced Placement Macroeconomics Course Description: Topic II, A 2-4, B 1-3, C 1-3</p>	<p><b>Differentiated Approaches:</b></p> <ol style="list-style-type: none"> <li>Heterogeneous groups</li> </ol>
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	2. Multiple formative check-ins prior to oral presentation of economy- written and verbal
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**Stage 1 Desired Results**

***Unit Title: Aggregate Supply and Demand and Fiscal Policy: National Income and Price Determination and Long Run Economic Growth***

<p>ESTABLISHED LEARNING GOALS:</p> <p>California State Standard: Economics 12.3, #1-3</p> <p>Advanced Placement Macroeconomics Course Description: Topic III: A-C, V: A-B and VI: B</p> <p>National Voluntary Standards: 16,17,19,20</p>	<b><i>Transfer</i></b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in economic cycles.</p>	
	<b><i>Meaning Making</i></b>	
	<p><b>UNDERSTANDINGS</b></p> <p><i>Students will understand that...</i></p> <p>Advanced Placement Macroeconomics Course Description: Topic III: A-C, V: A-B and VI: B</p>	<p><b>ESSENTIAL QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. What comprises supply and demand on an aggregate level and how does their equilibrium provide a national output and general price level for the nation?</li> <li>2. How and in what ways can fiscal policy be used to correct an economy out of equilibrium?</li> <li>3. What are the short run and long run implications of government debts and deficits?</li> <li>4. How and in what ways can an economy be self-correcting?</li> </ol>
	<b><i>Acquisition</i></b>	
<p><i>Students will know...</i></p> <p>Determinants of aggregate demand and aggregate supply, short-run and long-run aggregate supply, the multiplier,</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These trade-</p>	

	crowding-out effects, national debt and deficit, fiscal policy, sticky wages, Keynesian Economics, Classical Economics, the loanable funds market, The Phillip’s Curve	offs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the economic cycle
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This unit comprises some of the most essential pieces of understanding in the study of Macroeconomics. Students will gain a working understanding of what drives macro-economic cycles in the economy through a study of the Aggregate Demand and Supply Model. Additionally they will gain an understanding of the role that the government can play in changing the direction of the economy through fiscal policy as well as the implications of that policy in the short run and long run and the trade-offs between unemployment and inflation as demonstrated by the Phillip’s Curve. A point of focus for this unit is the economic implications of a growing national debt and deficit with a study of the loanable funds market and the crowding out effect on the economy. Lastly, students will examine the theoretical ways that economies can be self-correcting.

**Stage 2 - Evidence**

Learning Goals Measured: Advanced Placement Macroeconomics Course Description: Topic III: A-C, V: A-B and VI: B	<b>Success Criteria</b> (e.g. Learning progression, rubric, proficiency scale, etc.) Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers.
	<b>Sample Assessment</b> Students will be assessed at the end of the unit with a multiple choice exam that focuses on the above listed terms. Additionally, they will be assessed with an FRQ that requires logical manipulation of the AS/AD/LRAS model. They will be given an economy that is not in equilibrium and with a series of questions and models, they will be asked to correct that equilibrium and analyze the long run and short run implications of their fiscal policy approach.

**Stage 3 – Learning Plan**

Learning Goals Addressed: Advanced Placement Macroeconomics Course Description: Topic III: A-C,	<b>Sample Assignment:</b> National Budget Assignment. Using the site <a href="http://www.federalbudgetchallenge.org/pages/overview">http://www.federalbudgetchallenge.org/pages/overview</a> students will examine the spending and revenue parts of the National Budget. They will be asked to making spending and revenue changes in an
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V: A-B and VI: B	attempt to decrease the national deficit. Based on their decisions, they will participate in activities that ask them to examine the cost benefit analysis of their decision, demonstrate their choices on economic models and debate/discuss the economic implications of a growing national debt.
	<p><b>Differentiated Approaches:</b></p> <ol style="list-style-type: none"> <li>1. Examples of how to demonstrate their choices on economic models and graphs will be provided.</li> <li>2. Students can choose to work with a partner or on their own</li> <li>3. Equity sticks can be used during the discussion piece of the assignment.</li> <li>4. Whole class will be walked through an appropriate cost/benefit analysis before they complete their own</li> </ol>

<b>Stage 1 Desired Results</b>			
<b><i>Unit Title: Monetary Policy, The Financial Sector and Long Run Economic Growth</i></b>			
<p>ESTABLISHED LEARNING GOALS:</p> <p>California State Standard: Economics 12.3, #4, 12.5 #3</p> <p>Advanced Placement Macroeconomics Course Description: Topic IV, V and VI</p> <p>National Voluntary Standards: 12, 20</p>	<b><i>Transfer</i></b>		
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in economic cycles.</p>		
	<b><i>Meaning Making</i></b>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>UNDERSTANDINGS</p> <p><i>Students will understand that...</i></p> <p>Advanced Placement Macroeconomics Course Description: Topic IV, V and VI</p> </td> <td style="width: 50%;"> <p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What are they types of purposes of Money?</li> <li>2. How do banks create money through the process of Fractional Banking?</li> <li>3. What is the purpose of the Federal Reserve Bank and how does it attempt to stabilize the economy?</li> </ol> </td> </tr> </table>	<p>UNDERSTANDINGS</p> <p><i>Students will understand that...</i></p> <p>Advanced Placement Macroeconomics Course Description: Topic IV, V and VI</p>	<p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What are they types of purposes of Money?</li> <li>2. How do banks create money through the process of Fractional Banking?</li> <li>3. What is the purpose of the Federal Reserve Bank and how does it attempt to stabilize the economy?</li> </ol>
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<b><i>Acquisition</i></b>			
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<p><i>Students will know...</i></p> <p>M1, M2 and M3, purposes of</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic</p>		

	<p>money, Fractional Banking and T-accounts, Reserve Requirements, Money Supply and Money Demand, Federal Reserve System, Discount Rate, Federal Funds Rate, Open Market Operations, Money Neutrality, Monetarists Theory of Money, <math>MV=PQ</math>, Nominal and Real Interest Rates, Contractionary Monetary Policy, Expansionary Monetary Policy</p>	<p>ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the economic cycle</p>
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In this unit, students will gain an understanding of the banking and monetary system. Students will learn about the Federal Reserve System, its organization, and its variety of functions from regulations and oversight of banks to their role in the stabilization of the economy through Monetary Policy. Students will also learn about the fractional banking system in the United States and how banks create money through the loaning of customer deposits into the banking system. Students will analyze how changes in the Federal Reserve policy through open market operations and through the fractional banking system have broad impact on unemployment and inflation levels in the economy.

### Stage 2 - Evidence

Learning Goals Measured:  
Advanced Placement  
Macroeconomics Course  
Description  
IV. A #3,6. V. A.

**Success Criteria**

Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers

**Sample Assessment**

Students will be assessed at the end of the unit with a multiple choice exam that focuses on the above listed terms. Additionally they will be assessed with an FRQ that requires logical manipulation of the AS/AD/LRAS model and Money Supply Model. They will be given an economy that is not in equilibrium and with a series of questions and models, they will be asked to correct that equilibrium and analyze the long run and short run implications of their monetary policy choices.

### Stage 3 – Learning Plan

Learning Goals Addressed:  
Advanced Placement  
Macroeconomics Course

**Sample Assignment:** A brief summary of one assignment that explains what a student produces, how the student completes the assignment, and what the student learns.

Description V. A #3,4,6. V. A.	In small groups, students will be given information and data regarding a macro-economy that is out of long run equilibrium (recessionary or inflationary). On poster paper <ol style="list-style-type: none"> <li>1. The group defines the economy through explanation and drawing the appropriate model.</li> <li>2. The group uses the various tools of Monetary Policy (Discount Rate, Reserve Ratio and Open Market Operations) to correct their economy.</li> <li>3. The group briefly explains their solution and draws the appropriate AS/AD and Money Market Graphs to show the changes.</li> <li>4. Posters of the different scenarios and solutions are posted around the room and students participate in a brief gallery walk.</li> </ol>
	<b>Differentiated Approaches:</b> Include descriptions of how to meet the needs of diverse learners in the context of the sample assignment above (2-3 examples recommended). <ol style="list-style-type: none"> <li>1. Homogeneous groups</li> <li>2. Teacher monitoring and check-in</li> <li>3. Whole class debrief and Q and A</li> </ol>

Stage 1 Desired Results		
<b>Unit Title: The Open Economy: International Trade and Currency Exchange</b>		
ESTABLISHED LEARNING GOALS: California State Standard: Economics 12.6, #1-5  Advanced Placement Macroeconomics Course Description: Topic VII  National Voluntary Standards: 5	<b>Transfer</b>	
	<i>Students will be able to independently use their learning to...</i> Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in economic cycles.	
	<b>Meaning Making</b>	
	<b>UNDERSTANDINGS</b> <i>Students will understand that...</i> Advanced Placement Macroeconomics Course Description: Topic VII-A-D	<b>ESSENTIAL QUESTIONS</b> 1. What is the effect of tariffs and quotas on the American Economy? 2. How are our trade transactions recorded on our balance of payments? What is the effect of a trade deficit?

		3. How does international trade impact the value of the American dollar on the FOREX market?
	<b>Acquisition</b>	
	<i>Students will know...</i> Open economy, closed economy, Current Account, Financial Account, official reserves, Purchasing Power Parity (PPP) trade deficit, trade surplus, FOREX, imports, exports, quotas, tariffs, appreciation, depreciation	<i>Students will be skilled at...</i> Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the economic cycle.

Students will understand the implications of an open economy and the costs and benefits of international trade on domestic, international and currency markets. The topic of open trade vs. trade barriers and the economic implications of trade policy will also be covered. Students will understand how to “account” for trade with trade deficits and surpluses, balance of payments and the meaning of a trade balance. Additionally, students will understand how trade interactions and macro-economic factors impact the value of currency on the FOREX market and how a change in the value of currency has a resulting impact on the macro-economy.

### Stage 2 - Evidence

Learning Goals Measured: Advanced Placement Macroeconomics Course Description VII.B #1-3	<b>Success Criteria</b> Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers.
	<b>Sample Assessment</b> Students will be assessed at the end of the unit with a summative assessment that is part multiple choice exam that focuses on the above listed terms. Additionally, they will be assessed with an FRQ that requires logical manipulation of the AS/AD/LRAS that responds to a change in the international markets. They will be given an economy that is not in equilibrium and with a series of questions and models, they will be asked to correct that equilibrium and

	analyze the relationships and effects of a change in the macro-economy to the FOREX market and how that change in the FOREX market will then cycle back to impact the economy as demonstrated on the AS/AD/LRAS model.
<b>Stage 3 – Learning Plan</b>	
Learning Goals Addressed: Advanced Placement Macroeconomics Course Description VII.B #1-3, C.	<b>Sample Assignment:</b> Students are expected to understand the implications of various trade policies such as tariffs and quotas. In small groups students will be asked to manipulate supply and demand models based on a series of trade scenarios and show and explain the effects of those trade policies. (EX: “The US places a 10% tariff on all imports from China) Following the work on those scenarios, students will engage in a whole class discussion or “Four Corners Activity” on the benefits and costs of trade policies and actions. Discussion prompts will be taken from current headlines and posed as scenarios that students are expected to discuss/debate.
	<b>Differentiated Approaches:</b> <ol style="list-style-type: none"> <li>1. Heterogeneous groups determined by teacher</li> <li>2. A whole class practice example done with teacher facilitating before students begin their group work.</li> <li>3. Equity sticks/cards to encourage discussion from all class members</li> </ol>

<b>Stage 1 Desired Results</b>	
<b><i>Unit Title: Introduction to Micro-Economic Concepts</i></b>	
ESTABLISHED LEARNING GOALS California State Standard: Economics 12.1 & 12.2  Advanced Placement Microeconomics Course Description: Topic II, A & B, Topic IV A, #1-4, B #1-2.  National Voluntary Standards #1,2,3,5,6,7,8	<b><i>Transfer</i></b>
	<i>Students will be able to independently use their learning to...</i> Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in microeconomic markets.
	<b><i>Meaning Making</i></b>
UNDERSTANDINGS <i>Students will understand that...</i>	ESSENTIAL QUESTIONS 1. How does our consumption

	<p>Refer to College Board Course Outline: Microeconomics II. A #1-6, B #1-4</p>	<p>and production in the economy create externalities?</p> <ol style="list-style-type: none"> <li>2. What is elasticity and how sensitive is your demand to a change in price?</li> <li>3. How does the implementation of a tax effect consumer and producer surplus and overall market welfare?</li> <li>4. How do we make decisions in the market to maximize our utility?</li> </ol>
<b>Acquisition</b>		
	<p><i>Students will know...</i>  Supply, Demand, Determinants of Demand, Determinants of Supply, Normal good, Inferior good, Price Ceilings, Price Floors, Surplus, Shortage, Marginal Utility, Diminishing Marginal Utility, Negative Externality, Positive Externality, Spillover Benefits, Spillover Costs, Free-Rider problem, Marginal Benefit, Marginal Cost Price Elasticity of Demand , Cross-price Elasticity, Income elasticity, Price Elastic, Price Inelastic, Total Revenue, Profit, Determinants of Elasticity, Elasticity of Supply, Incidence of a Tax and Elasticity, Consumer Surplus, Producer Surplus, Equity, Efficiency, Deadweight Loss Due to Taxation</p>	<p><i>Students will be skilled at...</i>  Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the consumer and the firm in the market.</p>
<p>Part of the learning of this first unit of Micro-Economics is a brief review of the fundamentals of Supply and Demand from their learning in the first unit of Macro-Economics. The concepts of supply and demand are then used as a foundation for the rest of the learning in the unit. Students will understand, calculate and apply the concept of elasticity to both supply and demand and how elasticity determines who bears the burden of taxation on a product. Students will also apply the concept of consumer and producer surplus and how elasticity and taxes may lessen surplus and</p>		

overall market welfare. Lastly, students will apply the concept of externalities to the economic decision making model and understand how the true cost of production of the consumption of a good is not captured in the market price of that product and how policies can be created to capture to alter the market and capture those external costs.

### Stage 2 - Evidence

Learning Goals Measured:  
Advanced Placement  
Microeconomics Course  
Description  
II. 4 a and b, 5

**Success Criteria** (e.g. Learning progression, rubric, proficiency scale, etc.)  
Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers.

**Sample Assessment: Formative Assessment**  
Given a set of data that describes multiple price and quantity combinations of a given good, students will be asked to determine the relative elasticity of demand for that good. Once elasticity is determined, students will be asked to sketch the demand and supply curves for that good based on the determined elasticity of the good. Lastly, students will assume that a tax has been placed on this good, and using their sketched model, they will determine whether the buyers or sellers of the good pay more of the tax (based on relative elasticity) and the impact on market welfare as a result of the tax. In addition to correct manipulation of their model, a short summary explanation is also required.

### Stage 3 – Learning Plan

Learning Goals  
Addressed:  
Advanced Placement  
Microeconomics Course  
Description  
IV. #1-4

**Sample Assignment: Externalities**  
With this assignment students will examine real-world externalities (positive and negative) in the economy and consider possible solutions to those externalities. While reading Chapter 3 in *Naked Economics*, students will create a summary statement that defines an externality that is created in the economy today. Students will research their externality, looking for possible remedies to that externality. They will present their externality and solution to the class through a short presentation and they will turn in a written summary of their findings that includes a correct application of their work on the externalities model (graph).

**Differentiated Approaches:**

1. Focused reading guide for the chapter on Externalities in *Naked Economics*.
2. Heterogeneous pairings or groups for research
3. Teacher provides a model of analysis or sample to the class mid-way through their work.

## Stage 1 Desired Results

### ***Unit Title: Product Markets and Perfect Competition***

<p>ESTABLISHED LEARNING GOALS (e.g. standards at the local, state and/or national level)</p> <p>California State Standards 12.2</p> <p>Advanced Placement Microeconomics Course Description II. C #1-5, D#1a-c, #2 a-d</p> <p>National Voluntary Standards: 9</p>	<b><i>Transfer</i></b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in micro-economic markets.</p>	
	<b><i>Meaning Making</i></b>	
	<p>UNDERSTANDINGS</p> <p>Advanced Placement Microeconomics Course Description II. C #1-5, D#1a-c, #2 a-d</p>	<p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What are the various costs of production that all firms face?</li> <li>2. How does the idea of “Economies of Scale”, both benefit and hurt the marketplace?</li> <li>3. What is a perfectly competitive market and how are prices set in a perfectly competitive market?</li> </ol>
	<b><i>Acquisition</i></b>	
	<p><i>Students will know...</i></p> <p>Total Revenue, Economic Profit, Accounting Profit, Implicit Costs, Explicit Costs, Production Function, Fixed Costs (FC), Variable Costs (VC), Average Total Costs (ATC), Average Variable Costs (AVC), Economies of Scale, Long Run vs. Short ATC, Perfectly Competitive Market, Average Revenue, Marginal Revenue, zero economic profit, sunk costs, ease of entry/exit into market, homogenous products, perfect information, MC curve</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the consumer and the firm in the micro economy.</p>

	as the supply curve, measuring profit on the graph, shut-down or exit the industry.	
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The focus of this unit is to introduce students to the costs of production that all firms face. In studying these costs of production, students will understand the relationships and difference between average costs of production and marginal costs and how marginal costs determine output in relation to the market price of a product. Students will also understand the concept of Economies of Scale which is a key theory in market competition with the idea of building a business to “scale” so that average total costs are falling as output rises. Lastly, students will learn about the first of four market structures, which is the foundational theory of microeconomics. With a study of perfect competition, students will understand the workings of a competitive marketplace and how the price for the product is set by competition and the differences in profitability for a firm in this market in the long run and the short run. Perfect competition will be the market structure that all other market structures are compared for the remainder of the semester.

### Stage 2 - Evidence

Learning Goals Measured: Advanced Placement Microeconomics Course Description II. C#1-5, D1 a-c, D2a-d	<b>Success Criteria</b> Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers
	<b>Sample Assessment</b> Summative Assessment Students will be assessed at the end of the unit with a summative assessment that is part multiple choice exam that focuses on the above listed terms. Additionally, they will be assessed with an FRQ that requires logical manipulation of the costs curves and the PC model is required that demonstrates a scenario that impacts the firm and the market as a whole. They will be given a market that is not in long run equilibrium and with a series of questions and manipulations of the models, they will be asked to correct the short run equilibrium to bring the firm back to long run equilibrium with the whole market.

### Stage 3 - Learning Plan

Learning Goals Addressed: Advanced Placement Microeconomics Course Description IIC #1-5, IID#1a-c	<b>Sample Assignment:</b> As an introduction to the costs curves, students will be given a data table that numerically defines the various costs curves (ATC, MC, AVC, AFC) and a model of unmarked costs curves. Based on the patterns of the data in the table, students are asked to match the data table with the appropriate cost curve in the model. Additionally, students are asked a series of quick questions asking for them to identify the patterns they see in the curves, and the importance of their intersection points. Lastly, given
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	a set of market price data, students are asked to determine how much output would be produced at each price level and the level of profit or loss for this firm.
	<p><b>Differentiated Approaches:</b></p> <ol style="list-style-type: none"> <li>1. Heterogeneous pairings or small groups</li> <li>2. Teacher monitoring and questioning of pairs and groups</li> <li>3. Answer keys posted, so students can check progress of work</li> <li>4. Closure with quick individual check in or exit ticket to assess individual learning from the lesson</li> </ol>

<b>Stage 1 Desired Results</b>			
<b>Unit Title: Imperfect Market Structures: Monopolies, Oligopolies and Imperfect Competition</b>			
<p>ESTABLISHED LEARNING GOALS (e.g. standards at the local, state and/or national level)</p> <p>California State Standard: Economics 12.2</p> <p>Advanced Placement Microeconomics Course Description: Topic II D</p> <p>National Voluntary Standards: 9</p>	<b>Transfer</b>		
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in microeconomic markets.</p>		
	<b>Meaning Making</b>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>UNDERSTANDINGS</p> <p>Advanced Placement Microeconomics Course Description</p> <p>II. D #1-5</p> </td> <td style="width: 50%; vertical-align: top;"> <p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What is the market behavior of a monopoly and why is it considered to be imperfect?</li> <li>2. What is the market behavior of an oligopoly and how does it use Game Theory with its decision making?</li> <li>3. What is the market behavior of firm in monopolistic competition and why is it considered to be imperfect?</li> </ol> </td> </tr> </table>	<p>UNDERSTANDINGS</p> <p>Advanced Placement Microeconomics Course Description</p> <p>II. D #1-5</p>	<p>ESSENTIAL QUESTIONS</p> <ol style="list-style-type: none"> <li>1. What is the market behavior of a monopoly and why is it considered to be imperfect?</li> <li>2. What is the market behavior of an oligopoly and how does it use Game Theory with its decision making?</li> <li>3. What is the market behavior of firm in monopolistic competition and why is it considered to be imperfect?</li> </ol>
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<b>Acquisition</b>			
<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><i>Students will know...</i></p> <p>Monopoly, output effect, price effect, perfect price</p> </td> <td style="width: 50%; vertical-align: top;"> <p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources</p> </td> </tr> </table>	<p><i>Students will know...</i></p> <p>Monopoly, output effect, price effect, perfect price</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources</p>	
<p><i>Students will know...</i></p> <p>Monopoly, output effect, price effect, perfect price</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources</p>		

	discrimination, price discrimination, profit maximization rule, natural monopolies, deadweight loss, regulation, anti-trust laws, demand curve for a monopolist, Oligopoly, cartels, collusion, duopoly, equilibrium output, Game Theory, Nash Equilibrium, Prisoner's Dilemma, dominant strategy, excess capacity Monopolistic Competition, short run equilibrium, long run equilibrium, dead-weight loss and inefficiencies, advertising and brand loyalty	are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the consumer and the firm in the micro economy.
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In the previous unit, students learned about the costs that firms face and the theory of perfect competition. In this unit, students will apply their learning of the cost curve theory to firms that operate in imperfect market structures; Monopolies, Oligopolies and Monopolistic Competition. With each of these market structures students will complete similar points of analysis. They will examine why each of these is considered to be “imperfect”, their profit making ability in the short run and long run, how much market power they have over price and how different or similar firms are to each other within each structure. Additionally, students will examine the impact on consumers that each of these structures has and within the study of Oligopolies, students will learn Game Theory and the role it plays in decision making.

### Stage 2 - Evidence

Learning Goals Measured: Advanced Placement Microeconomics Course Description II.D#5a-d	<b>Success Criteria</b> Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers
	<b>Sample Assessment</b> Formative Assessment: Monopolistic Competition Students will have a formative assessment on their knowledge of firms in monopolistic competition. They will be assessed with an FRQ that requires logical manipulation of the costs curves as they apply to a firm in monopolistic competition. . They will be given a market that is not in long run equilibrium and with a series of questions and manipulations of the models, they will be asked to correct the short run equilibrium to bring the firm back to long run equilibrium with the whole market. Additionally, they will be asked

	<p>a series of questions that compares this market in equilibrium to a perfectly competitive market in equilibrium. (previous unit of study)</p>
<p><b>Stage 3 – Learning Plan</b></p>	
<p>Learning Goals Addressed: Advanced Placement Microeconomics Course Description II.D #4a-d</p>	<p><b>Sample Assignment:</b> Students will be introduced to Game Theory and the interconnectedness of a few firms in competition with each other through a series of activities and Game Theory examples:</p> <ol style="list-style-type: none"> <li>1. To introduce the idea of Game Theory, students will watch a brief clip from the film “<i>A Beautiful Mind</i>”, where John Nash describes his first example of Game Theory and how it alters traditional understandings of competitive markets.</li> <li>2. Using that clip, students are asked to try to describe, through table discussions, how co-operation between firms may actually be more beneficial than competition</li> <li>3. In small table groups students will work through their first game theory problem- “The Prisoner’s Dilemma” and determine the best course of action for each person who has been accused of a crime.</li> <li>4. Once Prisoner’s Dilemma has been solved and discussed, students will be shown a video sample of a British Game Show “<i>Golden Balls</i>” that demonstrates the strategy of Game Theory between two players in a competitive game situation.</li> <li>5. Using the previous models, students, in their table groups will work though sample game theory problems that relate to firms in Oligopolistic competition to determine the best course of action for each firm.</li> </ol> <p><b>Differentiated Approaches:</b> Include descriptions of how to meet the needs of diverse learners in the context of the sample assignment above (2-3 examples recommended).</p> <ol style="list-style-type: none"> <li>1. Heterogeneous pairings or small groups</li> <li>2. Think, pair, share discussions after film clips</li> <li>3. Teacher monitoring and questioning of pairs and groups</li> <li>4. Closure with quick individual check in or exit ticket to assess individual learning from the lesson</li> </ol>

## Stage 1 Desired Results

### ***Unit Title: Factor Markets: Labor and Income Distribution***

<p>ESTABLISHED LEARNING GOALS (e.g. standards at the local, state and/or national level)</p> <p>California State Standard: Economics 12.4 #1-4</p> <p>Advanced Placement Microeconomics Course Description: Topic III</p> <p>National Voluntary Standard: 13</p>	<b><i>Transfer</i></b>	
	<p><i>Students will be able to independently use their learning to...</i></p> <p>Apply their skills as an economist by combining learned economic theory, with economic reasoning to current, real world issues to understand the workings of economies and determine trends and future patterns in microeconomic markets.</p>	
	<b><i>Meaning Making</i></b>	
	<p><b>UNDERSTANDINGS</b></p> <p><i>Students will understand that...</i></p> <p>Advanced Placement Microeconomics Course Description: Topic III A-D</p>	<p><b>ESSENTIAL QUESTIONS</b></p> <ol style="list-style-type: none"> <li>1. How is demand for factors of production derived from the demand for goods and services in the economy?</li> <li>2. What are the market and non-market factors that determine wages in the labor market?</li> <li>3. How is income distributed in a market economy and what are causes of income inequality in a market economy?</li> </ol>
	<b><i>Acquisition</i></b>	
<p><i>Students will know...</i></p> <p>Derived Demand, Marginal Revenue Product (MRP), Marginal Product of Labor (MP<sub>L</sub>), Determinants of Labor Demand, Least-Cost Rule, Monopsony, Marginal Factor Cost (MFC), Marginal Tax Rate, Average Tax Rate, Progressive Tax Rate, Regressive Tax, Proportional Tax, Excise Tax, Egalitarianism, Lorenz Curve, Gini coefficient</p>	<p><i>Students will be skilled at...</i></p> <p>Articulating the basic economic ideas that productive resources are limited so every decision leads to tradeoffs. These tradeoffs also lead to an understanding that there is a cost and a benefit for every decision made. Therefore, thinking like an economist requires the skills of cost-benefit analysis, the use of models in analysis and the understanding and articulation of the interconnectedness of actions to the consumer and the firm in the micro economy.</p>	

In this unit, students apply the concepts of supply and demand to markets for factors of production such as labor, capital and land. Students analyze the concept of derived demand and how a factor’s marginal product and its marginal revenue affect the demand for the factor and consider the role of factor prices in the allocation of scarce resource. The emphasis of this part of the unit is on the labor market so emphasis will be given to labor specific topics such as wage determination, minimum wage, the role of unions and the role of monopsonies. Another component of this unit is the connection of factor prices and how the market determines the distribution of income distribution and the sources of income inequality in a market economy.

### Stage 2 - Evidence

Learning Goals Measured:  
Advanced Placement  
Microeconomics Course  
Description  
III. A, B, C

**Success Criteria**

Refer to College Board/Advanced Placement rubrics, scoring guides and sample answers

**Sample Assessment** Formative Assessment: Labor Markets and Wage Determination  
Students will have a formative assessment on their understanding of the perfectly competitive labor market and wage determination. They will be assessed with an FRQ problem that requires logical manipulation of the competitive labor market model. Students will be given a market that is in equilibrium and a series of scenarios that change the market demand for labor and an individual firm’s demand for labor and they will be asked to manipulate the models appropriately, and provide a brief written summary of their analysis. Additionally, they will be asked a series of questions that compares this perfectly competitive labor market in equilibrium to a monopsony based labor market and comment on the different levels of equilibrium.

### Stage 3 – Learning Plan

Learning Goals Addressed:  
Advanced Placement  
Microeconomics Course  
Description  
III. D.

**Sample Assignment:** Students will examine the topic of income inequality in a market based economy. Students will be assigned Chapter 6 in Naked Economics and will be provided focus questions to guide their reading. This chapter focuses on how income is distributed in a market economy, and the theoretical causes for why that income is unequally distributed in the United States. With that foundation, students in small groups or pairs will be asked to look for a real-world program, policy, idea, that attempts to remedy some of the effects of poverty and unequal income distribution in the United States. To get them started on their research they will be shown a clip of a documentary on the Harlem Renaissance Zone that will serve as a model idea for them to

	<p>consider. Students will participate in a Socratic seminar to share their findings and discuss some of the externalities we face in our economy as a result of the skewed rates of poverty we currently have.</p>
	<p><b>Differentiated Approaches:</b> Include descriptions of how to meet the needs of diverse learners in the context of the sample assignment above (2-3 examples recommended).</p> <ol style="list-style-type: none"> <li>1. Heterogeneous pairings or small groups</li> <li>2. Guided focus questions to help with their reading of chapter 6 in <i>Naked Economics</i></li> <li>3. Prior to the Socratic seminar, students will be provided with a few of the foundational questions to be discussed</li> <li>4. Rough draft summary of their research will be collected for feedback and suggestions.</li> </ol>

**Instructional Materials:**

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| <ol style="list-style-type: none"> <li>1. <i>Principles of Economics</i>, Gregory Mankiw, 5th edition, Cengage Learning. TUHSD approved</li> <li>2. <i>Naked Economics, Undressing The Dismal Science</i>, Charles Wheelan, 2nd edition, 2010, W.W. Norton and Company. TUHSD approved.</li> <li>3. College Board &amp; Advanced Placement support materials, test items and assessment rubrics and models.</li> </ol> |
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BOT Approved: 3/28/06  
 Revised: 4/4/17