

## Rumson-Fair Haven Regional High School

**Course:** *AP Economics*

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### **Section I: Course Description**

*AP Economics* prepares students for both the AP Microeconomics and AP Macroeconomics assessments. The course begins with AP Microeconomics, which provides students with a critical understanding of the economic principles that apply to the functions of individual decision-makers, both consumers and producers, within the economic system. Then, the course moves on to AP Macroeconomics, which provides students with a critical understanding of the economic principles that apply to the economic system as a whole. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. It is the curricular equivalent of two-semester introductory college/university courses in Microeconomics and Macroeconomics. The course is aligned with the curricular and instructional expectations detailed in [College Board Course Description: AP Microeconomics \[Fall 2022\]](#) and [College Board Course Description: AP Macroeconomics \[Fall 2022\]](#). This course satisfies the Financial Literacy graduation requirement.

### **Section II: NJSLs: New Jersey Student Learning Standards/Learning Objectives**

1. [2020 New Jersey State Learning Standards-Social Studies:](#)
  - o "...Today's challenges are complex, have global implications, and are connected to people, places, and events of the past. The study of social studies focuses on a deep understanding of concepts that enable students to think critically and systematically about local, regional, national, and global issues. Authentic learning experiences that enable students to apply content knowledge, develop social studies skills, and collaborate with students from around the world prepare New Jersey students for college, careers, and civic life. The natural integration of technology in social studies education allows students to overcome geographic borders, apply scientific and mathematical analysis to historical questions and contemporary issues, appreciate cultural diversity, and experience events through the examination of primary sources. The 2020 New Jersey Student Learning Standards – Social Studies (NJSLs-2020) are informed by national and state standards and other documents such as the College, Career, and Civic Life (C3) Framework for Social Studies State Standards, as well as those published by the National Center for History Education, National Council for Social Studies, National Council for Geographic Education, Center for Civic Education, National Council on Economic Education, National Assessment of Educational Progress, and the Partnership for 21st Century Skills. Social studies instruction occurs throughout the K-12 spectrum, building in the sophistication of learning about history, economics, geography, and civics at all ages."
2. [Standard 8.1 \(Computer Science\) and 8.2 \(Design Thinking\) of the 2020 NJSLs:](#)
  - o "The 'Intent and Spirit of the Computer Science and Design Thinking Standards' is to focus on a deep understanding of concepts that enable students to think critically and systematically about leveraging technology to solve local and global issues. Authentic learning experiences that enable students to apply content knowledge, integrate concepts across disciplines, develop computational thinking skills, acquire and incorporate varied perspectives, and communicate with diverse audiences about the use and effects of computing prepares New Jersey students for college and careers."
3. [Standard 9.4 \(Life Literacies and Key Skills\) of the 2020 NJSLs:](#)
  - o "This standard outlines key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy that are critical for students to develop to live and work in an interconnected global economy."  
**\*Climate Change:** The state of New Jersey has mandated instruction in, "Climate Change across all content areas, leveraging the passion students have shown for this critical issue and providing them opportunities to develop a deep understanding of the science behind the changes and to explore the solutions our world desperately needs."
4. [\\*Amistad Law: N.J.S.A. 18A 52:16A-88:](#)
  - o The inclusion of lessons and resources/texts dealing with the African slave trade, slavery in America, the vestiges of slavery in this country, and the contributions of African Americans to our society will be implemented in English and Social Studies courses in accordance with state law: "Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students."
5. [\\*Holocaust Law: N.J.S.A. 18A 35-28:](#)
  - o The inclusion of lessons and resources/texts that enable pupils to identify and analyze applicable theories concerning human nature and behavior; to understand that genocide is a consequence of prejudice and discrimination; and to understand that issues of moral dilemma and conscience have a profound impact on life will be implemented in English and Social Studies courses in accordance with state law: "Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the

curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.”

6. **\*LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35:**
  - o A transformative approach to the inclusion of lessons and resources/texts on the contributions and issues concerning the LGBTQ+ population and people with disabilities will be implemented across all core subjects in accordance with state law: “A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district’s implementation of the New Jersey Student Learning Standards (N.J.S.A.18A:35-4.36). A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.”
7. **Asian American and Pacific Legislation: N.J.S.A 4021/A6100:**
  - o The inclusion of lessons and resources/texts on the history and contributions of Asian Americans and Pacific Islanders will enable New Jersey’s schools to provide a curriculum that reflects the diversity of our state. In accordance with state law: “A board of education shall include instruction on the history and contributions of Asian Americans and Pacific Islanders in an appropriate place in the curriculum of students in grades kindergarten through as part of the school district’s implementation of the New Jersey Student Learning Standards in Social Studies.”
8. Acquisition/development/refinement of the higher-order critical thinking skills aligned with the *Revised Bloom’s Taxonomy of Cognitive Objectives*

### **Section III: Curriculum Modifications**

The *AP Economics* curriculum is subject to case-by-case modifications to support/advance the needs of all students, including special education students, English language learners, gifted students and those at risk of school failure. These modifications are based on Individualized Learning Programs (IEPs), recommendations made by the district’s English Language Learners (ELL) coordinator, feedback from members of the Intervention & Referral Services Team (*I&RS*) for at-risk students, and 504 Plans.

Coursework and assessments will be modified individually for students when necessary. Modifications may include but are not limited to:

- Small group instruction
- One-on-one instruction
- Independent work stations
- Use of graphic organizers
- Interest inventories and questionnaires
- Audio resources to complement written texts and concepts
- Visual resources to complement written texts and concepts
- Extra time on assessments and large-scale projects
- Reduced length of written assignments
- Large projects broken into smaller tasks and timelines
- Tiered Instruction
- Individual help during practice
- Diagrams and color coding for visual learners
- Verbal and written directions for visual and auditory learners
- Provided class notes
- Preferential seating
- Spelling not penalized
- Varied supplemental activities
- Assessments delivered orally

### **Section IV: Preparation for Standardized Testing**

Instruction in *AP Economics* is aligned with the requirements of state and national standardized assessments, including the *NJSLA*, the *ACT*, the *PSAT*, and the *SAT*.

### **Section V: Curriculum Pacing Guide**

<b>Course Title:</b> <i>AP Economics</i>	<b>Grade Level:</b> <i>10-12</i>
<b>Unit I:</b> AP Economics-Basic Economic Concepts	Weeks 1-3
<b>Unit II:</b> AP Micro.-Supply and Demand	Weeks 3-7
<b>Unit III:</b> AP Micro.-Production, Costs, & the Perfect Competition Model	Weeks 8-11
<b>Unit IV:</b> AP Micro.-Imperfect Competition	Weeks 12-14
<b>Unit V:</b> AP Micro.-The Factor Market	Weeks 15-16
<b>Unit VI:</b> AP Micro.-Market Failure and the Role of Government	Weeks 17-18
<b>Unit VII:</b> AP Macro.-Economic Indicators and the Business Cycle	Weeks 19-20
<b>Unit VIII:</b> AP Macro.-National Income and Price Determination	Weeks 21-22
<b>Unit IX:</b> AP Macro.-Financial Sector	Weeks 23-25
<b>Unit X:</b> AP Macro.: Long-Run Consequences of Stabilization Policy	Weeks 26-27
<b>Unit XI:</b> AP Macro.-Open Economy- International Trade and Finance	Weeks 28-29
<b>Unit XII:</b> Review for the AP Test	Weeks 30-33
<b>Unit XIII:</b> Post AP Test- Personal Finance	Weeks 34-40

**Section VII: Primary Texts and Year-Long Instructional Resources**

The following texts and instructional resources are employed for all students in *AP Economics*:

- Google Classroom

- AP Classroom
- Margaret Ray and David Anderson's *Krugman's Microeconomics for AP* (2012)
- Margaret Ray and David Anderson's *Krugman's Macroeconomics for AP* (2012)
- David Anderson's *Economics by Example* (2006)
- Charles Wheelan's *Naked Economics: Undressing the Dismal Science* (2010)
- Yoram Bauman's *Cartoon Introduction to Economics, Volume I: Microeconomics* (2010)
- Yoram Bauman's *Cartoon Introduction to Economics, Volume I: Macroeconomics* (2010)
- Eric Dodge's *5 Steps to a 5: AP Microeconomics*
- Eric Dodge's *5 Steps to a 5: AP Macroeconomics*
- Brian Reddington's *5 Steps to a 5: 500 AP Microeconomics/Macroeconomics Questions to Know by Test Day*
- *Common Sense Education* ([www.commonsense.org](http://www.commonsense.org))
- *Turnitin.com* (<https://www.turnitin.com/>)
- *ACDC Economics* (<https://www.acdcecon.com/>)
- *Marginal Revenue University* (<https://mru.org/>)
- *Dirk Mateer's Econ Media Library* ([www.dirkmateer.com](http://www.dirkmateer.com))
- *Econ Lowdown* (<https://www.econlowdown.org/>)
- *Next Gen Personal Finance* ([www.ngpf.org](http://www.ngpf.org))
- *Dallas Federal Reserve: Building Wealth* ([www.dallasfed.org/-/media/microsites/cd/wealth/index.html](http://www.dallasfed.org/-/media/microsites/cd/wealth/index.html))
- *Econ Ed Link* ([www.econedlink.org](http://www.econedlink.org))
- *Greenlight* (<https://greenlight.com/classrooms>)
- *Banzai!* ([www.teachbanzai.com](http://www.teachbanzai.com))
- *Take Charge Today* ([www.takechargetoday.arizona.edu](http://www.takechargetoday.arizona.edu))
- *Fidelity Learning Lab* ([www.fidelity.com/financial-forward/learning-lab/overview](http://www.fidelity.com/financial-forward/learning-lab/overview))
- *Practical Money Skills* ([www.practicalmoneyskills.com](http://www.practicalmoneyskills.com))
- *Nerd Wallet* ([www.nerdwallet.com](http://www.nerdwallet.com))
- *Critical Commons Library* (<https://criticalcommons.org>)
- *Jingle All the Way*
- *The Big Short*
- *Air*
- *The Lorax*
- *The Founder*
- *Get Smart with Money*
- *Money Explained*
- *The Giant Beast that is the Global Economy*

### **Section VIII: Grading Formula and Assessment Modes**

Marking period grades in *AP Economics* are determined via a percentage weighting model. The specific grading categories and weightings of each will be determined prior to the start of each academic year and will be published in the posted/distributed course syllabi.

### **Section IX: Unit Templates**

The following unit templates have been established for the *AP Economics* curriculum by the *AP Economics* instructional team:

Unit I: AP Economics-Basic Economic Concepts
<b>Unit Summary</b>
In this unit, students will understand that because most resources are scarce, individuals and societies must make choices. When making rational choices, people do so “on the margin,” taking into account the additional costs and benefits of their decisions. The foundational economic ideas addressed in this unit form the basis for a more advanced analysis of consumer and producer behavior that will be developed throughout the course. Unit I: Basic Economic Concepts also includes a comprehensive orientation to the curricular requirements of the <i>AP Microeconomics</i> and <i>AP Macroeconomics</i> Examinations.
<b>Standards/Core Ideas/Performance Expectations/Progress Indicators</b>
The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in <i>AP Economics</i> :
<ul style="list-style-type: none"> <li>• 2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12 <ul style="list-style-type: none"> <li>○ Reading: NJLSA.R1-7, NJLSA.R9-10 <ul style="list-style-type: none"> <li>■ RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9</li> </ul> </li> <li>○ Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10 <ul style="list-style-type: none"> <li>■ W.11.-12.1-8</li> </ul> </li> <li>○ Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6 <ul style="list-style-type: none"> <li>■ SL.11-12.1-4, SL.11-12.6</li> </ul> </li> </ul> </li> </ul>

- Language: NJLSA.L1-6
  - L.11-12.1-12.6

- 2020 New Jersey Student Learning Standards: *Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- 2020 New Jersey Student Learning Standards: *Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
<ul style="list-style-type: none"> <li>● What is the difference between microeconomics and macroeconomics?</li> <li>● What is scarcity?</li> <li>● What are economic trade-offs and how do they affect us?</li> <li>● What is the meaning of opportunity cost?</li> <li>● What are the three basic economic questions?</li> <li>● What are different economic systems?</li> <li>● What are the four factors of production?</li> <li>● How is the production possibilities curve mode used by economists?</li> <li>● What shifts the PPC?</li> <li>● What is absolute and comparative advantage?</li> <li>● How do nations determine trade?</li> <li>● How is marginal decision-making used in economics?</li> <li>● What is the impact that consumer choices have on the maximization of their individual utility?</li> </ul>	<ul style="list-style-type: none"> <li>● Microeconomics studies individual economic decision-making by individuals, businesses, and the government, while macroeconomics studies the economy as a whole.</li> <li>● Scarcity is having unlimited wants, but limited means. Most factors of production (land, labor, and capital) are scarce.</li> <li>● Due to scarcity, we are forced to make choices. Every choice comes with a trade-off. Economic trade-offs arise from the lack of sufficient resources (scarcity) to meet society’s wants and needs.</li> <li>● Opportunity cost is the value of the next best alternative.</li> <li>● The three basic economic questions are: What goods and services to produce? How to produce those goods and services? And who consumes these goods and services?</li> <li>● The four types of economic systems are traditional, command, market, and mixed. Out of the mixed economic systems, there is capitalism, communism, and socialism. Each system involves a particular set of institutional arrangements and a coordinating mechanism for allocating scarce resources and distributing output.</li> <li>● The four factors of production are land, labor, capital, and entrepreneurship.</li> <li>● The PPC is a model used to show the trade-offs associated with allocating resources. The PPC can be used to illustrate the concepts of scarcity, opportunity cost, efficiency, underutilized resources, and economic growth or contraction.</li> <li>● The PPC can shift due to changes in factors of production as well as changes in productivity/technology.</li> <li>● Absolute advantage describes a situation in which an individual, business, or country can produce more of a good or service than any other producer with the same quantity of resources.</li> <li>● Comparative advantage describes a situation in which an individual, business, or country can produce a good or service at a lower opportunity cost than another producer.</li> <li>● Comparative advantage and opportunity costs determine the terms of trade for exchange under which mutually beneficial trade can occur.</li> <li>● Some decisions permit rational agents to look at only marginal benefit and marginal cost. Other decisions cannot be broken down into increments in this way and must be evaluated by looking at total benefits and total costs.</li> <li>● In a model of rational consumer choice, consumers are assumed to make choices so as to maximize their total utility.</li> <li>● Consumers experience diminishing marginal utility in the consumption of goods and services.</li> <li>● Consumers allocate their limited income to purchase the combination of goods that maximizes their utility by equating/comparing the marginal utility of the last dollar spent on each good.</li> </ul>

**Evidence of Learning**

Formative Assessment:	Summative Assessment:	Resources Needed:
<ul style="list-style-type: none"> <li>● Classwork</li> <li>● Homework</li> <li>● Problem sets</li> <li>● Simulations</li> <li>● Performance activities</li> <li>● Module notes</li> <li>● Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>● Summer Assignment Seminar</li> <li>● Summer Assignment Quiz</li> <li>● Math Skills Quiz</li> <li>● Unit Test</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Krugman’s Microeconomics for AP</i> Modules 1- 4 and 15</li> <li>● Selected ACDC Economics videos and MRU videos</li> <li>● Excerpts from <i>Naked Economics</i></li> <li>● Excerpts from <i>The Cartoon Introduction to AP Microeconomics and AP Macroeconomics</i></li> <li>● Building a Zoo Activity</li> <li>● Types of Economic Systems Simulation</li> <li>● PPC Simulation</li> <li>● Trade Simulation</li> <li>● Graphing Packet</li> </ul>

		<ul style="list-style-type: none"> <li>• Utility Activity</li> <li>• AP Classroom</li> </ul>
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**Unit II: AP Microeconomics-Supply and Demand**

**Unit Summary**

In this unit, students will learn the basis for understanding how markets work by introducing the supply and demand model. Students will build on the concepts of scarcity and choice that were introduced in the first unit and explore the factors that influence consumer and producer behavior. They will learn how the interaction of consumers and producers in competitive markets determines market prices and results in the most efficient allocation of scarce resources. At the end of the unit, students will also begin exploring the effects of government policy on market outcomes, laying the groundwork for additional analysis in the last unit of the course.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.1.12.EG.3: Explain how individuals and businesses influence government policies.
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
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<ul style="list-style-type: none"> <li>• What is the law of demand?</li> <li>• What is the law of supply?</li> <li>• How are prices determined in a free market economy?</li> <li>• Why do shortages and surpluses exist and how are they combatted?</li> <li>• What shifts the demand curve?</li> <li>• What shifts the supply curve?</li> <li>• How do economists use the concept of elasticity?</li> <li>• How is price elasticity of demand calculated and why is it the best measure of how the quantity demanded responds to changes in prices?</li> <li>• What is the price elasticity of supply and how is it calculated?</li> <li>• What is income elasticity of demand and how is it used?</li> <li>• What is cross-price elasticity of demand and how is it used?</li> </ul>	<ul style="list-style-type: none"> <li>• The law of demand suggests that there is an inverse relationship between price and quantity demanded, <i>ceteris paribus</i>.</li> <li>• The law of supply suggests that there is a direct relationship between price and quantity supplied, <i>ceteris paribus</i>.</li> <li>• In a free-market economy, prices are determined where the quantity demanded equals the quantity supplied. This is the market equilibrium.</li> <li>• A shortage is when the quantity demanded exceeds the quantity supplied. This can be combated with an increase in price.</li> <li>• A surplus is when the quantity supplied exceeds the quantity demanded. This can be fixed by a decrease in price.</li> <li>• Changes in the determinants of consumer demand can cause the demand curve to shift. This includes changes in market size, expected price, price of related goods, income, and tastes.</li> <li>• Changes in the determinants of supply can cause the supply curve to shift. This includes changes in technology, price of related goods, input prices, competition, and expected prices of goods.</li> <li>• Economists use the concept of elasticity to measure the magnitude of percentage changes in quantity owing to any given changes in the price, income, and prices of related goods.</li> <li>• Price elasticity of demand is measured by the percentage change in quantity demanded divided by the percentage change in price or the responsiveness of the quantity demanded to changes in price. Elasticity varies along a linear demand curve, meaning slope is not elasticity.</li> <li>• Price elasticity of supply is measured by the percentage change in quantity supplied divided by the percentage change in price, or the responsiveness of the quantity supplied to changes in price.</li> <li>• Ranges of values of elasticity of supply are described as elastic or inelastic with the separating benchmark being a magnitude of 1, where the change in the price and the change in the quantity supplied are proportional.</li> <li>• Income elasticity of demand is measured by the percentage change in the quantity demanded divided by the percentage change in consumers'</li> </ul>
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<ul style="list-style-type: none"> <li>• What are consumer and producer surplus and how are they used?</li> <li>• What is deadweight loss?</li> <li>• What are forms of government price and quantity interventions?</li> <li>• Why does the government use taxes and subsidies?</li> <li>• What is the economic impact of tariffs and quotas and why are they used?</li> </ul>	<p>income. Economists use the income elasticity of demand to determine whether a good is normal or inferior.</p> <ul style="list-style-type: none"> <li>• Cross-price elasticity of demand is measured by the percentage change in the quantity demanded of one good divided by the percentage change in the price of another good. Economists use the cross-price elasticity of demand to determine whether goods are substitutes, complements, or not related.</li> <li>• Consumer surplus is the difference between what a consumer was willing to pay minus what they actually paid.</li> <li>• Producer surplus is the difference between what a seller received minus what they were willing to accept.</li> <li>• Economists use consumer surplus and producer surplus to measure the benefits markets create to buyers and sellers and understand market efficiency.</li> <li>• Deadweight loss represents the losses to buyers and sellers as a result of government intervention in an efficient market.</li> <li>• Some government policies, such as price floors, price ceilings, and other forms of price and quantity regulation, affect incentives and outcomes in all market structures.</li> <li>• Governments use taxes and subsidies to change incentives in ways that influence consumer and producer behavior, shifting the supply and demand curves accordingly. Taxes and subsidies affect government revenues or costs.</li> <li>• Tariffs, which governments sometimes use to influence international trade, affect domestic price, quantity, government revenue, consumer surplus, and total economic surplus.</li> <li>• Quotas can be used to alter quantities produced and therefore affect price, consumer surplus, and total economic surplus.</li> </ul>
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**Evidence of Learning**

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Supply and Demand Poster Project</li> <li>• Supply and Demand Quiz</li> <li>• Elasticity Quiz</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman's Microeconomics for AP</i> Modules 5-14</li> <li>• Selected ACDC Economics videos and MRU videos</li> <li>• Oil Market Simulation</li> <li>• Supply and demand movie clip examples</li> <li>• Pearl Exchange Simulation</li> <li>• AP Classroom</li> </ul>
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**Unit III: AP Microeconomics–Production, Costs, and the Perfect Competition Model**

**Unit Summary**

In this unit, students will focus on firm behavior. The unit culminates with an introduction to the perfect competition model, which will form a basis for comparison for other market structures in the next unit. This unit builds on the idea of supply, which was introduced in the previous unit, and explores in more detail what drives the decisions that firms make. Thinking like a firm may be challenging for students, who are more used to acting as consumers in their everyday lives. Drawing connections to students' own experiences and carrying out classroom simulations can help bring these concepts to life. Reminding students of the ways in which the behavior of firms is consistent with the ideas of cost-benefit analysis and marginal decision-making addressed in the first unit of the course may also be helpful in elucidating these concepts.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*

- 8.1.12.IC.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- 2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills
- 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
<ul style="list-style-type: none"> <li>● What is a firm's production function?</li> <li>● Why are production and cost subject to diminishing returns?</li> <li>● Why do a firm's costs differ between the short run and the long run?</li> <li>● What is the difference between fixed and variable costs?</li> <li>● How do you graph the cost curves?</li> <li>● Why do cost curves shift?</li> <li>● What is the relationship between inputs and outputs in the long run?</li> <li>● What is the long-run average total cost curve?</li> <li>● What is the difference between accounting and economic profit?</li> <li>● How do firms determine the profit-maximizing level of output?</li> <li>● How does a firm decide whether to produce or shut down in the short run?</li> <li>● What are the four principle types of market structures?</li> <li>● What are the characteristics of perfect competition?</li> <li>● How do firms in perfect competition determine the price?</li> <li>● What is allocative and productive efficiency?</li> <li>● How does a firm in a perfectly competitive market react to profit or loss in the industry?</li> </ul>	<ul style="list-style-type: none"> <li>● The production function explains the relationship between inputs and outputs both in the short run and the long run.</li> <li>● Diminishing marginal returns occur as the firm employs more of one input, holding other inputs constant, to produce a product (output) in the short run.</li> <li>● The short run is a period of time in which at least one input is fixed. In the long run, all inputs are variable.</li> <li>● Fixed costs do not change when more units of a good are produced, and variable costs change as more is produced. Fixed and variable costs determine the total cost.</li> <li>● Marginal cost, average fixed cost, average variable cost, average total cost, total cost, and total variable cost change as total output changes, but total fixed cost remains constant at all output levels, including zero output.</li> <li>● Marginal cost decreases at first due to specialization and then increases due to diminishing marginal returns.</li> <li>● The average total cost and average variable cost curves are U-shaped. They intersect marginal cost at their minimum.</li> <li>● The average fixed cost curve is downward sloping, but never touches zero, due to the spreading effect.</li> <li>● Cost curves can shift in response to changes in input costs and productivity.</li> <li>● The relationship between inputs and outputs, in the long run, is described by the scale of production—increasing, decreasing, or constant returns to scale.</li> <li>● The long-run average total cost is characterized by economies of scale, diseconomies of scale, or constant returns to scale (efficient scale).</li> <li>● Accounting profit fails to account for implicit costs (such as cost of financial capital, compensation for risk, or an entrepreneur's time), which, if fully compensated, result in normal profit.</li> <li>● Firms are assumed to produce output to maximize their profits by comparing marginal revenue and marginal cost.</li> <li>● In the short run, firms decide to operate (i.e., produce positive output) or shut down (i.e., produce zero output) by comparing total revenue to total variable cost or price to average variable cost (AVC).</li> <li>● The four types of market structures are monopoly, oligopoly, monopolistic competition, and perfect competition.</li> <li>● A perfectly competitive market is efficient. Firms in perfectly competitive markets face no barriers to entry and have no market power. The type of product is homogeneous or identical.</li> <li>● In a perfectly competitive market, firms are price takers and select output to maximize profit by producing the level of output where the marginal cost equals marginal revenue (at the price). Firms can sell all their outputs at a constant price determined by the market.</li> <li>● At a competitive market equilibrium, the price of a product equals both the private marginal benefit received by the last unit consumed and the private marginal cost incurred to produce the last unit, thus achieving allocative efficiency.</li> <li>● In a long-run perfectly competitive equilibrium, productive efficiency implies all operating firms produce at an efficient scale, price equals marginal cost and minimum average total cost, and firms earn zero economic profit.</li> <li>● In a short-run competitive equilibrium, the price can either be above or below its long-run competitive level resulting in profits or losses, motivating the entry or exit of firms and moving prices and quantities toward long-run equilibrium.</li> </ul>

**Evidence of Learning**

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>● Classwork</li> <li>● Homework</li> <li>● Problem sets</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>● Firm Cost Quiz</li> <li>● Market Structure Quiz</li> <li>● Perfect Competition Quiz</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>● <i>Krugman's Microeconomics for AP</i> Modules 18-24</li> <li>● Selected ACDC Economics videos and MRU videos</li> <li>● Market Structure Simulation</li> </ul>
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<ul style="list-style-type: none"> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>• Unit Test</li> </ul>	<ul style="list-style-type: none"> <li>• Cost Puzzle Competitions</li> <li>• <i>American Auto Makers Insult the Intelligence of High School Econ Students</i> Article</li> <li>• <i>From Short to Long: Economies of Scale and the Long-Run Average Total Cost Curve</i> Article</li> <li>• <i>It's So Cold in Orlando That Some of the Theme Parks Are Actually Closing</i> Article</li> <li>• AP Classroom</li> </ul>
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**Unit IV: AP Microeconomics-Imperfect Competition**

**Unit Summary**

In this unit, students will study how in the real world, firms rarely operate in perfectly competitive markets. In this unit, students will encounter the ways in which imperfectly competitive markets depart from the model of perfect competition introduced in Unit 3. Students will continue to build on their understanding of what it means for a market to be efficient or inefficient as they consider the welfare implications of imperfect markets. In the context of learning about oligopoly behavior, students will be introduced to the field of game theory as an approach to studying strategic decision-making.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.IC.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

<b>Unit Essential Questions</b>	<b>Unit Enduring Understandings</b>
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<ul style="list-style-type: none"> <li>• What are the characteristics of a monopoly?</li> <li>• Why do monopolies exist?</li> <li>• What are barriers to entry and what are the types of barriers to entry?</li> <li>• How does a monopolist determine the profit-maximizing price and quantity?</li> <li>• Why is marginal revenue less than demand for a monopoly?</li> <li>• What is a natural monopoly?</li> <li>• Why would a firm engage in price discrimination?</li> <li>• How do policymakers address the problems posed by monopolies?</li> <li>• What is perfect price discrimination?</li> <li>• What are the characteristics of monopolistic competition?</li> <li>• Why do firms in monopolistic competition advertise?</li> </ul>	<ul style="list-style-type: none"> <li>• A monopoly occurs when there is only one seller in an industry. The firm has complete price-setting ability. The type of good is unique.</li> <li>• Monopolies occur due to high barriers to entry.</li> <li>• Barriers to entry prevent other firms from entering the industry. The types of barriers to entry are high fixed/start-up costs, legal barriers to entry such as a patent, technological superiority, and exclusive ownership of key resources.</li> <li>• A monopolist determines the profit-maximizing quantity where marginal revenue equals marginal cost. They go up to the demand curve to find the price.</li> <li>• Marginal revenue is less than demand in a monopoly because a firm must lower the price to sell additional units.</li> <li>• In a natural monopoly, long-run economies of scale for a single firm exist throughout the entire effective demand of its product.</li> <li>• A firm with market power can engage in price discrimination to increase its profits or capture additional consumer surplus under certain conditions.</li> <li>• With perfect price discrimination, a monopolist produces the quantity where price equals marginal cost (just as a competitive market would) but extracts all economic surplus associated with its product and eliminates all deadweight loss.</li> <li>• In a market with monopolistic competition, firms produce differentiated products. There is some price-setting ability. There are low barriers to entry, so firms may earn positive, negative, or zero economic profit in the short run.</li> <li>• Firms typically use advertising as a means of differentiating their product.</li> </ul>
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<ul style="list-style-type: none"> <li>• What happens in the long run when there is profit in a monopolistically competitive industry?</li> <li>• Why do firms in monopolistic competition experience excess capacity?</li> <li>• What are the characteristics of an oligopoly?</li> <li>• Why do oligopolists have an incentive to collude and will collusion last?</li> <li>• What are the components of game theory?</li> <li>• When does a player have a dominant strategy?</li> <li>• When does Nash Equilibrium occur?</li> <li>• When does a Prisoner's Dilemma occur?</li> </ul>	<ul style="list-style-type: none"> <li>• If there is profit in a monopolistic competitive industry, firms will enter, demand and marginal revenue will decrease, price will decrease, and profit will decrease.</li> <li>• The output level is smaller than the output level needed to minimize average total costs, creating excess capacity.</li> <li>• An oligopoly is an inefficient market structure with high barriers to entry, where there are few firms acting interdependently.</li> <li>• Firms in an oligopoly have an incentive to collude and form cartels. However, collusion will not last since firms acting in their own self-interest have an incentive to cheat on a collusive agreement.</li> <li>• The main components of game theory are the game, payoff, and strategy. A game is a situation in which a number of individuals take action, and the payoff for each individual depends directly on both the individual's own choice and the choices of others. A strategy is a complete plan of actions for playing a game; the normal form model of a game shows the payoffs that result from each collection of strategies (one for each player).</li> <li>• A player has a dominant strategy when the payoff to a particular action is always higher independent of the action taken by the other player.</li> <li>• A Nash Equilibrium is a condition describing the set of actions in which no player can increase his or her payoff by unilaterally taking another action, given the other player's actions.</li> <li>• A Prisoner's Dilemma occurs when both firms choose their dominant strategy, the game reaches Nash Equilibrium, but there is a socially optimal point that could have been achieved had the firms colluded.</li> </ul>
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#### Evidence of Learning

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Monopoly Quiz</li> <li>• Monopoly Seminar</li> <li>• Monopolistic Competition and Oligopoly Quiz</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman's Microeconomics for AP</i> Modules 25- 31</li> <li>• Selected ACDC Economics videos and MRU videos</li> <li>• AP Classroom</li> <li>• Selected clips from <a href="https://criticalcommons.org">https://criticalcommons.org</a></li> <li>• <i>Monopoly and Price Discrimination</i> Article</li> <li>• <i>The Economics of Flying: How Competitive Are the Friendly Skies?</i> Article- Page One Elections</li> <li>• <i>Game Theory Explained</i> Article</li> </ul>
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### Unit V: AP Microeconomics-Factor Markets

#### Unit Summary

In this unit, students will apply many of the concepts they learned previously but now in the context of factor markets. Like with product markets, the laws of supply and demand apply to factor markets with an upward-sloping supply curve and a downward-sloping demand curve. In factor markets, firms hire additional resources up to the point at which the resource's marginal revenue product is equal to its marginal resource cost. This decision is another application of the idea, first introduced in Unit 1, of making an optimal choice by equating marginal benefit with marginal cost and firms' decisions to maximize profits where marginal revenue equals marginal cost.

#### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.IC.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

#### Unit Essential Questions

#### Unit Enduring Understandings

<ul style="list-style-type: none"> <li>• What resources are needed for production?</li> <li>• How do firms make hiring decisions?</li> <li>• How is the quantity of labor demanded and supplied related to the wage rate?</li> <li>• What causes the labor demand curve to shift?</li> <li>• What causes the labor supply curve to shift?</li> <li>• What is marginal revenue product?</li> <li>• What is the profit-maximizing decision for factors determined?</li> <li>• What are the characteristics and behaviors of a perfectly competitive labor market?</li> <li>• How do firms minimize costs or maximize profits?</li> <li>• What are the characteristics and behaviors of a monopsony?</li> <li>• What are the sources of wage disparities, including the role of discrimination?</li> </ul>	<ul style="list-style-type: none"> <li>• The factors of production are land, labor, capital, and entrepreneurship.</li> <li>• The factors of production respond to factor prices (wages, interest, and rent), and employers' decision to hire is based on the productivity of the factors, output price, and cost of the factor.</li> <li>• The quantity of labor demanded is negatively related to the wage rate, while the quantity of labor supplied is positively related to the wage rate in a given labor market, other things constant.</li> <li>• Changes in the determinants of labor demand, such as the output price and the productivity of the worker, cause the labor demand curve to shift.</li> <li>• Changes in the determinants of labor supply (such as immigration, education, working conditions, age distribution, availability of alternative options, preferences for leisure, and cultural expectations) cause the labor supply curve to shift.</li> <li>• Marginal revenue product of a factor of production is the change in total revenue divided by the change in that factor of production, which is also equal to the marginal physical product of that factor multiplied by the marginal revenue (<math>MRP = MP \times MR</math>)</li> <li>• A typical firm hires labor in a perfectly competitive labor market as long as the marginal revenue product of labor is greater than the market wage.</li> <li>• In a perfectly competitive labor market, the wage is set by the market and each firm hires the quantity of workers, where the marginal factor (resource) cost (wage) equals the marginal revenue product of labor. A typical firm may be a perfect competitor in the labor market even if it is an imperfect competitor in its output markets.</li> <li>• To minimize costs or maximize profits, firms allocate inputs such that the last dollar spent on each input yields the same amount of marginal product.</li> <li>• In a monopsonistic labor market, a typical firm hires additional labor as long as the marginal revenue product is greater than the marginal factor (resource) cost (the wage of a new unit of labor plus the wage increase given to all existing labor).</li> <li>• Wage disparities are a result of differences in talent, human capital, and compensating differentials.</li> </ul>
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**Evidence of Learning**

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Factor Market Quiz</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman's Microeconomics for AP</i> Modules 33- 37</li> <li>• Selected ACDC Economics videos and MRU videos</li> <li>• Circular Flow Simulation</li> <li>• Labor Market Simulation</li> <li>• <i>Laid Back Labor</i> Article- Freakonomics</li> <li>• AP Classroom</li> </ul>
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**Unit VI: AP Microeconomics-Market Failure and the Role of Government**

**Unit Summary**

In *AP Microeconomics Unit VI: Market Failure and the Role of Government*, students will understand the theoretical arguments for and against government intervention in markets and therefore have important public policy applications. Students will examine the conditions under which markets may fail and the effectiveness of government policies that are designed to correct market failures. In exploring the idea of market failures and government interventions to correct them, students will build on their understanding of efficiency and what it means for a firm to produce the socially optimal quantity or not. Students will also learn about how inequality is measured and the sources of income and wealth inequality.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6

- SL.11-12.1-4, SL.11-12.6
    - Language: NJLSA.L1-6
      - L.11-12.1-12.6
  - 2020 New Jersey Student Learning Standards: *Computer Science and Design Thinking*
    - 8.1.12.1C.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
  - 2020 New Jersey Student Learning Standards: *Career Readiness, Life Literacies, and Key Skills*
    - 9.1.12.EG.2-3, 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
<ul style="list-style-type: none"> <li>● What externalities are and why can they lead to inefficiency in a market economy?</li> <li>● How do you find the socially optimal quantity of a good?</li> <li>● How can market inefficiencies be eliminated?</li> <li>● What is the difference between negative and positive externalities?</li> <li>● What are policies used to address positive and negative externalities?</li> <li>● How are public and private goods characterized?</li> <li>● What is the free-rider problem and why does it occur?</li> <li>● What is Tragedy of the Commons and when does it occur?</li> <li>● What is the impact of a lump-sum tax or subsidy?</li> <li>● What is the impact of per-unit taxes and subsidies?</li> <li>● How do economists measure income inequality?</li> <li>● What are trends in income levels and poverty rates in the U.S.?</li> <li>● What explains sources of income and wealth inequality?</li> </ul>	<ul style="list-style-type: none"> <li>● Externalities are either positive or negative and arise from a lack of well-defined property rights and/or high transaction costs.</li> <li>● In the presence of externalities, rational agents respond to private costs and benefits and not to external costs and benefits.</li> <li>● The socially optimal quantity of a good occurs where the marginal social benefit of consuming the last unit equals the marginal social cost of producing that last unit, thus maximizing total economic surplus.</li> <li>● Market inefficiencies can be eliminated by designing policies that equate marginal social benefit with marginal social cost.</li> <li>● A positive externality is when a good produces a third-party spillover effect that benefits others. A negative externality is when a good produces external costs on society.</li> <li>● Policies that address positive or negative externalities include taxes/subsidies, environmental regulation, public provision, the assignment of property rights, and the reassignment of property rights through private transactions.</li> <li>● Private goods are rival and excludable, and public goods are non-rival and non-excludable.</li> <li>● The free-rider problem arises when a good is non-excludable. Due to the free-rider problem, private individuals usually lack the incentive to produce public goods, leaving the government as the only producer.</li> <li>● Tragedy of the Commons occurs since natural resources are, by their nature, non-excludable and rival and therefore open access. Private individuals inefficiently overconsume and deplete such resources.</li> <li>● Lump-sum taxes and lump-sum subsidies do not change either marginal cost or marginal benefit; only fixed costs will be affected.</li> <li>● Per-unit taxes and subsidies affect the total price consumers pay, net price firms receive, equilibrium quantity, consumer and producer surpluses, deadweight loss, and government revenue or cost. The impact of change depends on the price elasticity of demand and supply.</li> <li>● The Lorenz curve and Gini coefficient are used to represent the degree of inequality in distributions and to compare distributions across different countries, policies, or time periods.</li> <li>● Income levels and poverty rates vary greatly both across and within groups (e.g., age, gender, race) and countries.</li> <li>● Sources of income and wealth inequality include differences in tax structures (progressive and regressive tax structures), human capital, social capital, inheritance, effects of discrimination, access to financial markets, mobility, and bargaining power within economic and social units (firms, labor unions, and families).</li> </ul>

**Evidence of Learning**

Formative Assessment:	Summative Assessment:	Resources Needed:
<ul style="list-style-type: none"> <li>● Classwork</li> <li>● Homework</li> <li>● Problem sets</li> <li>● Simulations</li> <li>● Performance activities</li> <li>● Module notes</li> <li>● Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>● Externality Quiz</li> <li>● Unit Test</li> <li>● Microeconomics Review Summative Assessment</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Krugman's Microeconomics for AP</i> Modules 38- 42</li> <li>● Selected ACDC Economics videos and MRU videos</li> <li>● <i>Economics and the Environment</i> Article- Page One Economics</li> <li>● <i>Gini in a Bottle: Some Facts on Income Inequality</i> Article- Page One Economics</li> <li>● AP Classroom</li> </ul>

### Unit Summary

Students will begin learning macroeconomics in this unit. Students will learn how the economy works with a model of the circular flow of inputs and outputs and the money that pays for them. Students will also explore how economists assess the performance of the economy with an introduction to measures of economic performance and the business cycle. In this unit, students will continue to build on their application of economic principles and models by examining key measures of economic performance: gross domestic product (GDP), unemployment, and inflation. These concepts will be revisited in different contexts and models in the units that follow.

### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

#### Unit Essential Questions

- How do economists measure a nation's performance?
- What is GDP?
- How is the circular flow model used in economics?
- How is GDP measured?
- What are the limitations of GDP?
- What is the difference between real and nominal GDP?
- How do you calculate real GDP?
- What is the unemployment rate and how is it measured?
- What is the labor force participation rate and how is it measured?
- What are the limitations of the unemployment rate?
- What are the types of unemployment?
- How do you calculate the natural rate of unemployment?
- Why would the natural rate of unemployment change over time?
- What is inflation and how is it measured?
- What is the consumer price index?
- What is the difference between nominal and real values?

#### Unit Enduring Understandings

- An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.
- GDP is the total dollar value of all final goods and services produced in an economy in a given year.
- GDP as a total flow of income and expenditure can be represented by the circular flow diagram.
- There are three ways of measuring GDP: the expenditures approach, the income approach, and the value-added approach.
- GDP is a useful indicator of a nation's economic performance, but it has some limitations, such as failing to account for non-market transactions.
- Nominal GDP is a measure of how much is spent on output. Real GDP is a measure of how much is produced. Nominal GDP measures aggregate output using current prices. Real GDP measures aggregate output using constant prices, thus removing the effect of changes in the overall price level.
- Nominal GDP can be converted to real GDP by using the GDP deflator.
- The unemployment rate is the percentage of the labor force that is out of work but currently seeking work.
- The labor force participation rate is another measure of the labor market activity in an economy. The labor force participation rate is the percentage of the adult population that is in the labor force.
- The measured unemployment rate is often criticized for understating the level of joblessness because it excludes groups such as discouraged workers and part-time workers.
- Economists primarily focus on three types of unemployment: cyclical, frictional, and structural.
- The natural rate of unemployment is the unemployment rate that would exist when the economy produces full-employment real output. It is equal to the sum of frictional and structural unemployment. The deviation of the actual unemployment rate from the natural rate is cyclical unemployment.
- The natural rate of unemployment can gradually change over time because of such things as changes in labor force characteristics.
- Inflation is the overall rise in prices over time. The inflation rate is determined by calculating the percentage change in a price index, such as CPI or the GDP deflator.
- The CPI measures the change in income a consumer would need in order to maintain the same standard of living over time under a new set of

<ul style="list-style-type: none"> <li>• What are the shortcomings of the CPI as a measure of inflation?</li> <li>• How does unexpected inflation impact individuals differently in the economy?</li> <li>• What is the business cycle?</li> <li>• What are the phases and turning points of the business cycle?</li> </ul>	<p>prices as under the original set of prices. The CPI measures the cost of a fixed basket of goods and services in a given year relative to the base year.</p> <ul style="list-style-type: none"> <li>• Real variables, such as real wages, are the nominal variables deflated by the price level.</li> <li>• The CPI as a measure of inflation has some shortcomings, such as substitution bias, causing it to overstate the true inflation rate.</li> <li>• Unexpected inflation arbitrarily redistributes wealth from one group of individuals to another group, such as lenders to borrowers. Borrowers benefit from inflation, while lenders get hurt.</li> <li>• Business cycles are fluctuations in aggregate output and employment because of changes in aggregate supply and/or aggregate demand.</li> <li>• The phases of a business cycle are recession and expansion. The turning points of a business cycle are peak and trough.</li> </ul>
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**Evidence of Learning**

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• GDP Quiz</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman’s Macroeconomics for AP</i> Modules 10- 15</li> <li>• Selected ACDC Economics videos and MRU videos</li> <li>• Circular Flow Simulation</li> <li>• “GDP: Does it Measure Up?” Article</li> <li>• “Making Sense of the Ups and Downs of Prices” article</li> <li>• Unemployment Rate Interactive</li> <li>• FRED (<a href="https://fred.stlouisfed.org/">https://fred.stlouisfed.org/</a>)</li> <li>• AP Classroom</li> </ul>
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**Unit VIII: AP Macroeconomics-National Income and Price Determination**

**Unit Summary**

In this unit, students will learn how to represent and evaluate key macroeconomic indicators and the business cycle in the context of a specific economic model: the aggregate demand–aggregate supply model. The aggregate demand–aggregate supply model is a powerful tool that allows economists to represent the impact of spending and production decisions, economic fluctuations, and policy actions on macroeconomic outcomes, including output, income, unemployment, and inflation.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

**Unit Essential Questions**

**Unit Enduring Understandings**

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| <ul style="list-style-type: none"> <li>• What is the multiplier effect in economics?</li> <li>• What is the expenditure multiplier and how does it compare to the tax multiplier?</li> <li>• What is the marginal propensity to consume?</li> <li>• What is the aggregate demand curve?</li> </ul> | <ul style="list-style-type: none"> <li>• The multiplier effect explains that a \$1 change to autonomous expenditures leads to further changes in total expenditures and total output.</li> <li>• The expenditure multiplier quantifies the size of the change in aggregate demand as a result of a change in any of the components of aggregate demand.</li> <li>• The tax multiplier quantifies the size of the change in aggregate demand as a result of a change in taxes.</li> <li>• The expenditure multiplier and tax multiplier depend on the marginal propensity to consume.</li> </ul> |
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<ul style="list-style-type: none"> <li>• What explains the slope of the aggregate demand curve?</li> <li>• What causes the aggregate demand curve to shift?</li> <li>• What is the impact of a shift of aggregate demand?</li> <li>• What is the short-run aggregate supply curve?</li> <li>• What explains the slope of the short-run aggregate supply curve?</li> <li>• What causes the short-run aggregate supply curve to shift?</li> <li>• What is the impact of the shift of short-run aggregate supply?</li> <li>• What is the difference between the long-run and short-run in economics?</li> <li>• What is the long-run aggregate supply curve and what does it look like?</li> <li>• When does short-run equilibrium occur?</li> <li>• When does long-run equilibrium occur?</li> <li>• What are recessionary and inflationary gaps?</li> <li>• How does the economy self-correct to adjust to full employment?</li> <li>• Why does the government implement fiscal policy?</li> <li>• What are the tools of fiscal policy?</li> <li>• What is the short-run of fiscal policy on the economy?</li> <li>• Why would the government choose to use expansionary or contractionary fiscal policy?</li> <li>• Why are there lags to discretionary fiscal policy?</li> <li>• What are automatic stabilizers?</li> <li>• What are examples of automatic stabilizers?</li> </ul>	<ul style="list-style-type: none"> <li>• The marginal propensity to consume is the change in consumer spending divided by the change in disposable income. The sum of the marginal propensity to consume and marginal propensity to save is equal to one.</li> <li>• The aggregate demand (AD) curve describes the relationship between the price level and the quantity of goods and services demanded by households (consumption), firms (investment), government (government spending), and the rest of the world (net exports).</li> <li>• The negative slope of the AD curve is explained by the real wealth effect, the interest rate effect, and the exchange rate effect.</li> <li>• Any change in the components of aggregate demand (consumption, investment, government spending, or net exports) that is not due to changes in the price level leads to a shift of the AD curve.</li> <li>• A positive (negative) shock in AD causes output, employment, and the price level to rise (fall) in the short run</li> <li>• The short-run aggregate supply (SRAS) curve describes the relationship between the price level and the quantity of goods and services supplied in an economy.</li> <li>• The SRAS curve is upward-sloping because of sticky wages and prices.</li> <li>• Any factor that causes production costs to change, such as technology or a change in inflationary expectations, will cause the SRAS curve to shift.</li> <li>• A positive (negative) shock in SRAS causes output and employment to rise (fall) and the price level to fall (rise) in the short run.</li> <li>• In the long run all prices and wages are fully flexible, while in the short run some input prices are fixed.</li> <li>• The LRAS curve is vertical at the full-employment level of output because in the long run wages and prices fully adjust. A consequence of flexible long-run prices and wages is the lack of a long-run trade-off between inflation and unemployment.</li> <li>• Short-run equilibrium occurs when the aggregate quantity of output demanded and the aggregate quantity of output supplied are equal—i.e., at the intersection of the AD and SRAS curves.</li> <li>• Long-run equilibrium occurs when the AD and SRAS curves intersect on the LRAS—i.e., at the full-employment level of real output.</li> <li>• The short-run equilibrium output can be at the full-employment level of output, above it, or below it, creating positive (i.e., inflationary) or negative (i.e., recessionary) output gaps.</li> <li>• In the long run, in the absence of government policy actions, flexible wages and prices will adjust to restore full employment and unemployment will revert to its natural rate after a shock to aggregate demand or short-run aggregate supply.</li> <li>• Governments implement fiscal policies to achieve macroeconomic goals, such as full employment.</li> <li>• The tools of fiscal policy are government spending, taxes, and transfer payments.</li> <li>• Changes in government spending affect aggregate demand directly, and changes in taxes/transfers affect aggregate demand indirectly.</li> <li>• Expansionary or contractionary fiscal policies are used to restore full employment when the economy is in a negative (i.e. recessionary) or positive (i.e. inflationary) output gap.</li> <li>• In reality, there are lags to discretionary fiscal policy because of factors such as the time it takes to decide on and implement a policy action.</li> <li>• Automatic stabilizers support the economy during recessions and help prevent the economy from being overheated during expansionary periods.</li> <li>• Unemployment insurance and the progressive tax structure are examples of automatic stabilizers. Tax revenues decrease automatically as GDP falls, preventing consumption and the economy from falling further.</li> </ul>
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**Evidence of Learning**

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• AD/AS FRQ</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman's Macroeconomics for AP</i> Modules 16- 21</li> <li>• Selected ACDC Economics videos and MRU videos</li> </ul>
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<ul style="list-style-type: none"> <li>● Performance activities</li> <li>● Module notes</li> <li>● Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>● Fiscal Ship Simulation (<a href="https://fiscalship.org/">https://fiscalship.org/</a>)</li> <li>● FRED (<a href="https://fred.stlouisfed.org/">https://fred.stlouisfed.org/</a>)</li> <li>● AP Classroom</li> </ul>
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**Unit IX: AP Macroeconomics-Financial Sector**

**Unit Summary**

In this unit, students will evaluate the macroeconomic effects of monetary policy. Before doing so, though, they should first have an understanding of how the financial sector works and be able to describe how monetary policy is implemented and transmitted through the banking system. This understanding begins with an introduction to financial assets, including money, and the way in which fractional reserve banking allows for the expansion of the money supply. Students will then build on their understanding of the financial sector by learning how to model the money market, the reserve market, and the loanable funds market.

**Standards/Core Ideas/Performance Expectations/Progress Indicators**

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
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| <ul style="list-style-type: none"> <li>● What is money and what gives money value?</li> <li>● What are the three types of money and what type do we have in the U.S.?</li> <li>● What are the three functions of money?</li> <li>● How are the money supply and monetary base measured?</li> <li>● What are various financial assets?</li> <li>● What is liquidity and what are the most liquid assets?</li> <li>● What are interest rates?</li> <li>● What is the relationship between bond prices and interest rates?</li> <li>● What is the opportunity cost of holding money?</li> <li>● What is the nominal interest rate and how is it determined?</li> <li>● How is the real interest rate calculated?</li> <li>● How are assets and liabilities organized on a balance sheet?</li> <li>● What is fractional reserve banking?</li> <li>● What are excess reserves?</li> </ul> | <ul style="list-style-type: none"> <li>● Money is any asset that is accepted as a means of payment. Money has value because of the belief in it.</li> <li>● There is commodity money, commodity-backed money, and fiat money. The U.S. and almost all economies today have fiat money.</li> <li>● Money serves as a medium of exchange, store of value, and unit of account.</li> <li>● The money supply is measured using monetary aggregates designated as M1 and M2. The monetary base (often labeled as M0 or MB) includes currency in circulation and bank reserves.</li> <li>● Financial assets people can hold include money, demand deposits, bonds (interest-bearing assets), and stocks (equity).</li> <li>● Liquidity explains how quickly an asset can be converted to cash. The most liquid forms of money are cash and demand deposits.</li> <li>● Interest rates provide a measure of the price of money that is borrowed or saved.</li> <li>● The price of previously issued bonds and interest rates on bonds are inversely related.</li> <li>● The opportunity cost of holding money is the interest that could have been earned from holding other financial assets such as bonds.</li> <li>● A nominal interest rate is the rate of interest paid for a loan, unadjusted for inflation. Lenders and borrowers establish nominal interest rates as the sum of their expected real interest rate and expected inflation.</li> <li>● A real interest rate can be calculated in hindsight by subtracting the actual inflation rate from the nominal interest rate.</li> <li>● Depository institutions (such as commercial banks) organize their assets and liabilities on balance sheets.</li> <li>● Depository institutions operate using fractional reserve banking. Banks' reserves are divided into required reserves and excess reserves.</li> <li>● Excess reserves are the basis of the expansion of the money supply by the banking system.</li> </ul> |
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<ul style="list-style-type: none"> <li>• What is the money multiplier and how is it calculated?</li> <li>• What explains the size of the expansion of the money supply?</li> <li>• Why might the money multiplier be overstated?</li> <li>• What is the money demand curve?</li> <li>• What is the money demand curve?</li> <li>• How is equilibrium determined in the money market?</li> <li>• What shifts the money demand and supply curves?</li> <li>• Who is the central bank in the U.S.?</li> <li>• What is the Fed's dual mandate?</li> <li>• What are the tools of monetary policy and how are they implemented?</li> <li>• What is the ample reserve system and what is the key policy tool in an ample reserve system?</li> <li>• How do open market operations work?</li> <li>• What is the federal funds rate?</li> <li>• How does monetary policy in a limited reserve system compare to monetary policy in an ample reserve system?</li> <li>• What is expansionary and contractionary monetary policy?</li> <li>• How does monetary policy impact the economy?</li> <li>• Why are there lags to monetary policy?</li> <li>• What is the loanable funds market?</li> <li>• What is the demand for loanable funds?</li> <li>• What is the supply of loanable funds?</li> <li>• How is the equilibrium of loanable funds determined?</li> <li>• What shifts the supply and demand of loanable funds?</li> </ul>	<ul style="list-style-type: none"> <li>• The money multiplier is the ratio of the money supply to the monetary base. The maximum value of the money multiplier can be calculated as the reciprocal of the required reserve ratio.</li> <li>• The size of the expansion of the money supply depends on the money multiplier.</li> <li>• The amount predicted by the simple money multiplier may be overstated because it does not take into account a bank's desire to hold excess reserves or the public holding more currency.</li> <li>• The demand for money shows the inverse relationship between the nominal interest rate and the quantity of money people want to hold.</li> <li>• Given a monetary base determined by a country's central bank, the money supply is independent of the nominal interest rate.</li> <li>• In the money market, equilibrium is achieved when the nominal interest rate is such that the quantities demanded and supplied of money are equal.</li> <li>• Factors that shift the demand for money, such as changes in the price level, and supply of money, such as monetary policy, change the equilibrium nominal interest rate.</li> <li>• The Federal Reserve System is the central bank in the U.S.</li> <li>• Central banks implement monetary policies to achieve macroeconomic goals, such as price stability and full employment. This is the Fed's dual mandate.</li> <li>• The tools of monetary policy may include the central bank's discount rate and other administered interest rates (e.g., interest on reserves), open market operations, and the required reserve ratio. The tools used and the way in which they are implemented differ between economies that have limited reserves in their banking system and economies that have ample reserves in their banking system.</li> <li>• The banking system in the United States has ample reserves, and the Federal Reserve's key policy tool is interest on reserves.</li> <li>• When the central bank conducts an open market purchase (sale), reserves increase (decrease), thereby increasing (decreasing) the monetary base.</li> <li>• Many central banks carry out policy to hit a target range for an overnight interbank lending rate, sometimes referred to as the central bank's policy rate. In the United States, this is the federal funds rate.</li> <li>• In an economy with limited reserves, the central bank can influence the nominal interest rate by changing the money supply. In an economy with ample reserves, changes in the money supply do not effectively change the nominal interest rate; instead, the central bank can influence the nominal interest rate by changing its administered interest rates.</li> <li>• Expansionary or contractionary monetary policies are used to restore full employment when the economy is in a negative (i.e., recessionary) or positive (i.e., inflationary) output gap.</li> <li>• Monetary policy can influence interest rates, aggregate demand, real output, and the price level.</li> <li>• In reality, there are lags to monetary policy caused by the time it takes to recognize a problem in the economy and the time it takes the economy to adjust to the policy action.</li> <li>• The loanable funds market describes the behavior of savers and borrowers.</li> <li>• The demand for loanable funds shows the inverse relationship between real interest rates and the quantity demanded of loanable funds.</li> <li>• The supply of loanable funds shows the positive relationship between real interest rates and the quantity supplied of loanable funds.</li> <li>• In the loanable funds market, equilibrium is achieved when the real interest rate is such that the quantities demanded and supplied of loanable funds are equal.</li> <li>• Factors that shift the demand (such as an investment tax credit) and supply (such as changes in saving behavior) of loanable funds change the equilibrium interest rate and the equilibrium quantity of funds.</li> </ul>
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**Evidence of Learning**

<b>Formative Assessment:</b> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> </ul>	<b>Summative Assessment:</b> <ul style="list-style-type: none"> <li>• Money Quiz</li> <li>• Monetary Policy Quiz</li> </ul>	<b>Resources Needed:</b> <ul style="list-style-type: none"> <li>• <i>Krugman's Macroeconomics for AP</i> Modules 22- 29</li> </ul>
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<ul style="list-style-type: none"> <li>● Problem sets</li> <li>● Simulations</li> <li>● Performance activities</li> <li>● Module notes</li> <li>● Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>● Unit Test</li> </ul>	<ul style="list-style-type: none"> <li>● Selected ACDC Economics videos and MRU videos</li> <li>● <i>Money, Explained</i></li> <li>● Making Money in Middlevillage Simulation</li> <li>● AP Classroom</li> </ul>
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## Unit X: AP Macroeconomics-Long-Run Consequences of Stabilization Policies

### Unit Summary

This unit is a culmination and an extension of material that has been introduced previously. For example, in Units 3 and 4, students learned that public policy can affect the economy's output, price level, and level of employment in the short run; in this unit, students will build on this understanding to examine the long-run implications of policy actions and the concept of economic growth. Similarly, in Unit 2 students were introduced to inflation and unemployment as economic indicators, and in Unit 3 they learned about the relationship between inflation and unemployment; in this unit, students explore how the Phillips curve model is used to represent this relationship in the short run and long run.

### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.IC.1, 8.2.12.ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

### Unit Essential Questions

- How are monetary and fiscal policy used in combination and what is the impact?
- What relationship is shown by the short-run Phillips curve?
- What is the relationship between inflation and unemployment in the long run?
- How are recessionary and inflationary gaps demonstrated on the short-run Phillips curve?
- What causes a movement and shift on the short-run Phillips curve?
- What shifts the long-run Phillips curve?
- What is the long-run effect of changing the money supply?
- How do economists use the quantity theory of money to analyze changes in monetary policy?
- What is a budget deficit and budget surplus?
- What is the national debt?

### Unit Enduring Understandings

- A combination of expansionary or contractionary fiscal and monetary policies may be used to restore full employment when the economy is in a negative (i.e., recessionary) or positive (i.e., inflationary) output gap.
- A combination of fiscal and monetary policies can influence aggregate demand, real output, price level, and interest rates.
- The short-run trade-off between inflation and unemployment can be illustrated by the downward-sloping short-run Phillips curve (SRPC).
- The long-run relationship between inflation and unemployment can be illustrated by the long-run Phillips curve (LRPC), which is vertical at the natural rate of unemployment.
- Points to the left of long-run equilibrium represent inflationary gaps, while points to the right of long-run equilibrium represent recessionary gaps.
- Demand shocks correspond to movement along the SRPC. Supply shocks correspond to shifts of the SRPC.
- Factors that cause the natural rate of unemployment to change will cause the LRPC to shift.
- When the economy is at full employment, changes in the money supply have no effect on real output in the long run.
- In the long run, the growth rate of the money supply determines the growth rate of the price level (inflation rate) according to the quantity theory of money.
- The government budget surplus (deficit) is the difference between tax revenues and government purchases plus transfer payments in a given year.
- A government adds to the national debt when it runs a budget deficit.
- When a government is in a budget deficit, it typically borrows to finance its spending. The result is crowding out. Crowding out refers to the adverse effect of increased government borrowing, which leads to

<ul style="list-style-type: none"> <li>• When the government is running a budget deficit, how does it finance spending and what is the result of this?</li> <li>• How is crowding out demonstrated on a loanable funds graph?</li> <li>• What is the long-run impact of crowding out?</li> <li>• How is economic growth measured?</li> <li>• How are aggregate employment and aggregate output related?</li> <li>• How is productivity determined?</li> <li>• What is shown on the aggregate production function?</li> <li>• How is economic growth demonstrated on macroeconomic models?</li> <li>• How can public policy be used to influence economic growth?</li> </ul>	<p>decreased levels of interest-sensitive private sector spending in the short run.</p> <ul style="list-style-type: none"> <li>• A loanable funds market model can be used to show the effect of government borrowing on the equilibrium real interest rate and the resulting crowding out of private investment.</li> <li>• A potential long-run impact of crowding out is a lower rate of physical capital accumulation and less economic growth as a result.</li> <li>• Economic growth can be measured as the growth rate in real GDP per capita over time.</li> <li>• Aggregate employment and aggregate output are directly related because firms need to employ more workers in order to produce more output, holding other factors constant. This is captured by the aggregate production function.</li> <li>• Productivity is determined by the level of technology and physical and human capital per worker.</li> <li>• The aggregate production function shows that output per capita is positively related to both physical and human capital per capita.</li> <li>• The LRAS and production possibilities curve (PPC) are used to illustrate changes in economic growth/ full employment. An outward shift in the PPC is analogous to a rightward shift of the long-run aggregate supply curve.</li> <li>• Public policies that impact productivity and labor force participation affect real GDP per capita and economic growth. Government policies that invest in infrastructure and technology affect growth. Supply-side fiscal policies affect aggregate demand, aggregate supply, and potential output in the short run and long run by influencing incentives that affect household and business economic behavior.</li> </ul>
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#### Evidence of Learning

<p><b>Formative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Classwork</li> <li>• Homework</li> <li>• Problem sets</li> <li>• Simulations</li> <li>• Performance activities</li> <li>• Module notes</li> <li>• Do now packet (practice MC questions)</li> </ul>	<p><b>Summative Assessment:</b></p> <ul style="list-style-type: none"> <li>• Phillips Curve Quiz</li> <li>• Unit Test</li> </ul>	<p><b>Resources Needed:</b></p> <ul style="list-style-type: none"> <li>• <i>Krugman's Macroeconomics for AP</i> Modules 30- 40</li> <li>• Selected ACDC Economics videos and MRU videos</li> <li>• AP Classroom</li> </ul>
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### Unit XI: AP Macroeconomics-The Open Economy- International Trade and Finance

#### Unit Summary

This unit introduces students to the concept of an open economy in which a country interacts with the rest of the world through both product and financial markets. This unit is often challenging for students because economic activity between nations must be facilitated by currency exchange, which introduces another market to be considered when analyzing macroeconomic situations. Changes in economic activity affect the supply of and demand for a nation's currency and subsequently the value of that currency. But it is also true that changes in the value of a country's currency can affect economic activity in that country. In addition to these insights, students have the opportunity in this unit to consider the effects of economic policy on exchange rates and the implications of such changes. In this unit, students will be asked to not only demonstrate a robust understanding of economic principles but also show that they know how to interpret and manipulate economic models in the context of an open economy. They need to synthesize the concepts they have learned throughout the course to explain changes in net exports, financial capital flows, and policy actions in the foreign exchange market, and demonstrate this understanding via graphical representations.

#### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6

- Language: NJLSA.L1-6
  - L.11-12.1-12.6

- 2020 New Jersey Student Learning Standards: *Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- 2020 New Jersey Student Learning Standards: *Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
<ul style="list-style-type: none"> <li>● What is the balance of payments?</li> <li>● What is the current account and what is the largest component of it?</li> <li>● What is the capital and financial account?</li> <li>● What is a credit and a debit on the BOP?</li> <li>● What is an exchange rate?</li> <li>● What does it mean when a currency appreciates or depreciates?</li> <li>● How are the demand and supply of foreign currency determined?</li> <li>● How do shortages and surpluses arise in the foreign exchange market?</li> <li>● What shifts the demand and supply of currency?</li> <li>● How do fiscal and monetary policy impact exchange rates?</li> <li>● How does the appreciation or depreciation of a currency affect net exports?</li> <li>● How do changes in real interest rates affect capital inflow?</li> </ul>	<ul style="list-style-type: none"> <li>● The balance of payments (BOP) is an accounting system that records a country's international transactions for a particular time period. It consists of the current account (CA) and the capital and financial account (CFA).</li> <li>● The CA records net exports, net income from abroad, and net unilateral transfers. The largest component of the CA is the balance of trade (i.e., net exports).</li> <li>● The CFA records financial capital transfers and purchases and sales of assets between countries.</li> <li>● Any transaction that causes money to flow into a country is a credit to its BOP account, and any transaction that causes money to flow out is a debit. The sum of all credit entries should match the sum of all debit entries (CA+CFA=0).</li> <li>● In the foreign exchange market, one currency is exchanged for another; the price of one currency in terms of the other is the exchange rate.</li> <li>● If one currency becomes more valuable in terms of the other, it is said to appreciate. If one currency becomes less valuable in terms of the other, it is said to depreciate.</li> <li>● The demand for a currency in a foreign exchange market arises from the demand for the country's goods, services, and financial assets and shows the inverse relationship between the exchange rate and the quantity demanded of a currency.</li> <li>● The supply of a currency in a foreign exchange market arises from making payments in other currencies and shows the positive relationship between the exchange rate and the quantity supplied of a currency.</li> <li>● Disequilibrium exchange rates create surpluses and shortages in the foreign exchange market. Market forces drive exchange rates toward equilibrium.</li> <li>● Factors that shift the demand for a currency (such as the demand for that country's goods, services, or assets) and the supply of a currency (such as tariffs or quotas on the other country's goods and services) change the equilibrium exchange rate.</li> <li>● Fiscal policy can influence aggregate demand, real output, the price level, and exchange rates. Monetary policy can influence aggregate demand, real output, the price level, and interest rates, and thereby affect exchange rates.</li> <li>● Factors that cause a currency to appreciate cause that country's exports to decrease and its imports to increase. As a result, net exports will decrease.</li> <li>● In an open economy, differences in real interest rates across countries change the relative values of domestic and foreign assets. Financial capital will flow toward the country with the relatively higher interest rate.</li> </ul>

**Evidence of Learning**

Formative Assessment:	Summative Assessment:	Resources Needed:
<ul style="list-style-type: none"> <li>● Classwork</li> <li>● Homework</li> <li>● Problem sets</li> <li>● Simulations</li> <li>● Performance activities</li> <li>● Module notes</li> <li>● Do now packet (practice MC questions)</li> </ul>	<ul style="list-style-type: none"> <li>● ForEx Quiz</li> <li>● Unit Test</li> <li>● Macroeconomics Review Summative Assessment</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Krugman's Macroeconomics for AP</i> Modules 41- 45</li> <li>● Selected ACDC Economics videos and MRU videos</li> <li>● AP Classroom</li> </ul>

**Unit XII: Review for the AP Test**

**Unit Summary**

In *this unit*, students will engage in a comprehensive review sequence for the College Board examination. Students will utilize the unit materials that they developed during the course of the year to support this comprehensive review sequence. Students will engage in a unit-a-day review project. The administration and performance review of a College Board-released *AP Economic Examination* will be an essential component of *Unit VII: AP Economics Review*.

### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6
- *2020 New Jersey Student Learning Standards: Computer Science and Design Thinking*
  - 8.1.12.1C.1, 8.2.12ITH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- *2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills*
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

#### Unit Essential Questions

- What are the essential concepts to understand in AP Economics?
- What are the graphs and formulas you need to know for the AP test?
- How do you effectively answer an FRQ?

#### Unit Enduring Understandings

- Economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.
- It is important to interpret a specific economic outcome using quantitative data or calculations through graphs and formulas.
- On the AP test, students must explain the similarities, differences, and limitations of economic concepts, principles, and models.
- To effectively answer an FRQ, students must ensure they respond to each aspect of the question and make sure responses are labeled clearly and thoroughly.

#### Evidence of Learning

##### Formative Assessment:

- Classwork
- Homework
- Problem sets
- Simulations
- Performance activities

##### Summative Assessment:

- Unit a Day Review Project
- Unit Review Quizzes

##### Resources Needed:

- *Krugman's Microeconomics for AP* (all modules)
- *Krugman's Macroeconomics for AP* (all modules)
- *5 Steps to a 5: AP Microeconomics/Macroeconomics*
- Selected ACDC Economics videos and MRU videos
- Practice Multiple Choice Problems
- Free Response Question Sets
- 2005-2023 AP Microeconomics/Macroeconomics Examinations
- AP Classroom

### Unit XIII: Post AP Test- Personal Finance

#### Unit Summary

In this unit, students will build core skills to effectively manage their personal finances. Students will learn real-world strategies in order to be fiscally responsible in the future. Students will learn about saving, investing, credit, debt, insurance, taxes, budgeting, paying for college, and career skills. They will be responsible for understanding and implementing the concepts required through various simulations and case studies.

### Standards/Core Ideas/Performance Expectations/Progress Indicators

The state standards outlined below, and established by the New Jersey Department of Education, will guide instruction throughout this unit in *AP Economics*:

- *2016 New Jersey Student Learning Standards: English Language Arts for Grades 11-12*
  - Reading: NJLSA.R1-7, NJLSA.R9-10
    - RL.11-12.1-7, RL.11-12.9, RI.11-12.1-4, RI.11-12.6-7, RI.11-12.9
  - Writing: NJLSA.W1-NJLSA.W8, NJLSA.W10
    - W.11.-12.1-8
  - Speaking and Listening: NJLSA.SL1-4, NJLSA.SL6
    - SL.11-12.1-4, SL.11-12.6
  - Language: NJLSA.L1-6
    - L.11-12.1-12.6

- 2020 New Jersey Student Learning Standards: Computer Science and Design Thinking
  - 8.1.12.IC.1, 8.2.12.IH.1-3, 8.2.12.ETW.1, 8.2.12.ETW.4, 8.2.12.EC.1
- 2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills
  - 9.1.12.CDM.1-8, 9.1.12.CP.1-9, 9.1.12.FI.1-4, 9.1.12.FP.1-7, 9.1.12.PB.1-6, 9.1.12.RM.1-7
  - 9.2.12.CAP.3-7, 9.2.12.CAP.10-12
  - 9.4.12.CI.1-3, 9.4.12.CT.1-4, 9.4.12.IML.1-2,7-9, 9.4.12.GCA.1

Unit Essential Questions	Unit Enduring Understandings
<ul style="list-style-type: none"> <li>● What is a checking account and how does it work?</li> <li>● What are the different types of savings options?</li> <li>● What are common rules of thumb and strategies to save money?</li> <li>● Why is it important to save and what are the different ways that you can save?</li> <li>● What is the difference between investing and saving?</li> <li>● Why should you invest?</li> <li>● How and where can you invest?</li> <li>● How is investing in a fund a more diversified approach than investing in a single stock or bond?</li> <li>● What should you consider before deciding where to invest your money?</li> <li>● Why would someone need or want credit?</li> <li>● How can a young adult gain access to a credit card and why is it an excellent way to build credit?</li> <li>● What is a credit history and credit score?</li> <li>● How does insurance help manage risk?</li> <li>● What are the main types of insurance that you need to have?</li> <li>● Why is it important to budget your money?</li> <li>● What strategies and tools are used for budgeting?</li> </ul>	<ul style="list-style-type: none"> <li>● A checking account is a type of bank account that offers easy access to deposited funds. Checking accounts are a great option for storing your money for short term and day-to-day use.</li> <li>● The different savings vehicles are savings accounts, certificates of deposit (CD), and money market accounts.</li> <li>● The 50/30/20 budgeting rule is a well-known rule of thumb and is considered easy to follow. This method allots 50% to needs, 30% to wants, and 20% to savings. Another rule is as soon as you receive your paycheck, put a fixed amount or percentage of your money directly into your savings.</li> <li>● It is important to save for several reasons such as attaining your short term goals and maintaining an emergency fund.</li> <li>● Saving is the amount of income you take away for a “rainy day” or short-term goal and investing is buying an asset that will provide a return over time.</li> <li>● You should invest to build wealth, save for retirement, minimize the impact of inflation, and to earn higher average rates of return than you would in a typical savings account.</li> <li>● You can invest in individual stocks, mutual funds, index funds, ETFs, or target date funds. Most investors do this by setting up a brokerage account.</li> <li>● Investing in a fund is more diversified because the purpose of a fund is to spread your money across different investments, whereas with a single stock or bond your return is entirely based on the performance of that one investment.</li> <li>● When deciding where to invest, you should consider the risk, return, and liquidity of your investment.</li> <li>● When you have "credit," it means you have borrowed money and have to pay it back to the lender. You can accumulate credit (or debt) through credit cards, student loans, mortgages, auto loans, personal loans, and more.</li> <li>● Young adults can obtain a credit card by getting a co-signer, getting a secured credit card and tagging on another credit card. Getting a secured credit card is an excellent way to build credit because it creates healthy credit habits early on.</li> <li>● Your credit history and credit score are used to determine how responsible of a lender you are. The stronger both are, the more likely you are to get loans for big purchase items (e.g. car, house, etc.) with lower interest rates and other favorable terms.</li> <li>● Insurance is a way to protect yourself against potential accidents, by transferring the cost of a potential loss to the insurance company in exchange for a fee called a premium.</li> <li>● Most Americans have insurance policies for: auto insurance, health insurance, homeowners insurance, and life insurance.</li> <li>● Keeping a budget helps you stay in control of managing your money and planning for the future.</li> <li>● Many people use budgeting apps to track their expenses. People also need to distinguish between needs and wants to better adjust their budgets to their lifestyles.</li> <li>● Some common, popular budgeting strategies include the 50/20/30 rule and envelope budgeting.</li> </ul>

**Evidence of Learning**

Formative Assessment:	Summative Assessment:	Resources Needed:
<ul style="list-style-type: none"> <li>● Classwork</li> <li>● Homework</li> <li>● Problem sets</li> <li>● Simulations</li> </ul>	<ul style="list-style-type: none"> <li>● Stock Market</li> <li>● Portfolio Project</li> <li>● Budgeting Project</li> <li>● Long-Term Plan</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Get Smart with Money</i></li> <li>● <i>Money Explained</i></li> <li>● <i>Next Gen Personal Finance</i> (<a href="http://www.ngpf.org">www.ngpf.org</a>)</li> <li>● <i>Dallas Federal Reserve: Building Wealth</i> (<a href="http://www.dallasfed.org/-/media/microsites/cd/wealth/index.html">www.dallasfed.org/-/media/microsites/cd/wealth/index.html</a>)</li> </ul>

<ul style="list-style-type: none"> <li>• Performance activities</li> </ul>		<ul style="list-style-type: none"> <li>• <i>Econ Ed Link</i> (<a href="http://www.econedlink.org">www.econedlink.org</a>)</li> <li>• <i>Greenlight</i> (<a href="https://greenlight.com/classrooms">https://greenlight.com/classrooms</a>)</li> <li>• <i>Banzai!</i> (<a href="http://www.teachbanzai.com">www.teachbanzai.com</a>)</li> <li>• <i>Take Charge Today</i> (<a href="http://www.takechargetoday.arizona.edu">www.takechargetoday.arizona.edu</a>)</li> <li>• <i>Fidelity Learning Lab</i> (<a href="http://www.fidelity.com/financial-forward/learning-lab/overview">www.fidelity.com/financial-forward/learning-lab/overview</a>)</li> <li>• <i>Practical Money Skills</i> (<a href="http://www.practicalmoneyskills.com">www.practicalmoneyskills.com</a>)</li> <li>• <i>Nerd Wallet</i> (<a href="http://www.nerdwallet.com">www.nerdwallet.com</a>)</li> </ul>
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**Section X: Unit Reflection**

The *AP Economics* instructional team must confer upon the completion of each instructional unit in the *AP Economics* curriculum and rate the degrees to which the instructional units meet performance criteria established by the New Jersey Department of Education using the Unit Reflection Form. Completed unit reflection forms must be submitted to the Department Supervisor for approval upon completion of curriculum implementation with a complementing list of suggested modifications to the *AP Economics* curriculum.

<b>Unit Reflection Form: AP Economics</b>			
<b>Lesson Activities:</b>	<b>Strongly</b>	<b>Moderately</b>	<b>Weakly</b>
Foster student use of technology as a tool to develop critical thinking, creativity and innovation skills;			
Are challenging and require higher order thinking and problem-solving skills;			
Allow for student choice;			
Provide scaffolding for acquiring targeted knowledge/skills;			
Integrate modern, global perspectives, especially those regarding diversity, genocide, global issues, and historical ones regarding racial relations;			
Integrate 21 <sup>st</sup> century skills;			
Provide opportunities for interdisciplinary connection and transfer of knowledge and skills;			
Are varied to address different student learning styles and preferences;			
Are differentiated based on student needs;			
Are student-centered with teacher acting as a facilitator and co-learner during the teaching and learning process;			
Provide means for students to demonstrate knowledge and skills and progress in meeting learning goals and objectives;			
Provide opportunities for student reflection and self-assessment;			
Provide data to inform and adjust instruction to better meet the varying needs of learners.			

## **Appendix**

### ***Writing Instruction and the RFH Community***

Writing instruction should happen across the RFH Community. Writing across the curriculum is a philosophy that advances the belief that writing is a method of learning. Since all departments are committed to helping students learn, writing must be used as a methodology to advance student learning.

Each academic discipline has its own unique conventions, formats and structures. It is the responsibility of each department to agree upon domain-specific writing praxes, model them for students, and require them to utilize them on a consistent basis. Students must understand that acceptable writing in one domain may not be acceptable writing in another area. The development of domain-specific writing skills supports the overall development of the student writer because all writing is grounded in the writing situation: audience, context, purpose, subject, and writer. Representatives from the academic disciplines must share their domain-specific writing praxes with each other, identify intersections, and determine how to address perceived gaps that limit student learning.

Students must experience writing situations that help them learn how to think creatively and critically and communicate effectively in the academic disciplines. Writing instruction, regardless of the academic discipline, must always reinforce student understanding of the writing situation. When students experience writing situations, they must study examples of domain-specific writing in order to understand how writers communicate in discipline-related contexts. This does not mean information embedded in textbooks. Domain-specific writing is writing that is used to inform and influence readers as it draws them into an established circle of discourse. Students must use these non-fiction texts to develop the close reading skills that will shape their own writing. Focused engagement with domain-specific writing should not be limited to basic reading comprehension and topical understanding. It must also include the analysis of the writing situation that is represented in the text: audience, context, purpose, subject, and writer. The close reading of well-written texts—regardless of the domain—will show students the importance of writing mechanics, diction, and syntax. The development of close reading skills will also help the students grow in terms of their ability to construct and advance independent and original claims that are well-supported by evidence. Domain-specific writing is grounded in positioning of claims and the effective use of evidence.

The final written product is important; nevertheless, the learning that results in this production must not be devalued. The writing process is not limited to the basic steps of planning, drafting, revising, and editing/proofreading. It is a complex sequence of critical and creative thinking and writing that leads to the production of a text that provides evidence of learning and understanding. Students must ultimately develop the ability to self-assess the effectiveness of their writing as a representation of the writing situation. Without the use of models that evidence learning and understanding, students will not develop the ability to self-assess their own work—the true outcome of the writing process.

#### **What types of writing situations should RFH students engage in?**

RFH students should engage in writing situations across the curriculum that require them to:

- write to improve mechanical proficiency, diction usage, and syntactical sophistication
- write to narrate, describe, and reflect
- write to summarize and report
- write to classify and define
- write to explain how process leads to an outcome
- write to compare, contrast and evaluate
- write to speculate on cause and effect
- write to propose solutions and solve problems
- write to analyze

These writing situations should be positioned in a coordinated, developmental sequence that extends across the academic disciplines.

Upon Completion of Grade 12, RFH students must be ready to transition to the following writing situations:

- write to analyze
- write to persuade (argument)

The core foci of first-year college writing courses are analysis and argument. These courses orient the students to the demands and expectations of writing for the academic culture of college. At colleges/universities with carefully coordinated writing programs, students must demonstrate proficiency in analysis and argument before they transition to upper-level courses that require them to engage in the following writing situation:

- write to investigate (research)