Unit 2: Supply and Demand AP Microeconomics

15 Class Meetings

Rev. December 2019

Essential Questions

• What can supply and demand models tell economists about a good?

Enduring Understanding with Unit Goals

EU 1: Supply and demand curves display the price and quantity within a specific market.

- Analyze market equilibrium
- Explain what factors shift the demand and supply curves.

EU 2: There are economic consequences that come with price controls and taxes.

- A price control will create a shortage or surplus in a given good.
- Taxes may impact supply, demand, and deadweight loss.

EU 3: The elasticity of a good impacts consumer behavior in response to price changes.

- Identify when a good is a complement or substitute based on calculation of crosselasticity
- Identify when a good is inferior or normal based on calculation of elasticity of income.

Standards

<u>College Career and Civic Life - C3 Framework for Social Studies State Standards</u>

- **D2.Eco.1.9-12**. Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.
- **D2.Eco.2.9-12.** Use marginal benefits and marginal costs to construct an argument for or against an approach or solution to an economic issue.
- **D3.4.9-12**. Refine claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim while pointing out the strengths and limitations of both.

- **D4.2.9-12.** Construct explanations using sound reasoning, correct sequence (linear or nonlinear), examples, and details with significant and pertinent information and data, while acknowledging the strengths and weaknesses of the explanation given its purpose (e.g., cause and effect, chronological, procedural, technical)
- **D4.6.9-12.** Use disciplinary and interdisciplinary lenses to understand the characteristics and causes of local, regional, and global problems; instances of such problems in multiple contexts; and challenges and opportunities faced by those trying to address these problems over time and place.

Common Core State Standards

- **CCSS.ELA-LITERACY.RH.11-12.2** Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- **CCSS.ELA-LITERACY.RH.11-12.7** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
- CCSS.ELA-LITERACY.WHST.11-12.1.A Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence..
- **CCSS.ELA-LITERACY.WHST.11-12.1.D** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- **CCSS.ELA-LITERACY.WHST.11-12.1.E** Provide a concluding statement or section that follows from or supports the argument presented.
- **CCSS.ELA-LITERACY.WHST.11-12.2.B** Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- **CCSS.ELA-LITERACY.WHST.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **CCSS.ELA-LITERACY.WHST.11-12.9** Draw evidence from informational texts to support analysis, reflection, and research.

• **CCSS.ELA-LITERACY.WHST.11-12.10** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

MSMHS 21st Century Learning Expectations

Competency 1. Read and write effectively for a variety of purposesCompetency 2. Speak effectively with a variety of audiences in an accountable mannerCompetency 3. Make decision and solve problems independently and collaboratively.Competency 5. Contribute to a positive learning environment with respect and responsibility

Unit Content Overview

- Supply schedule
- Supply curve
- Demand schedule
- Demand curve
- Shifters of supply/demand
- Equilibrium
- Invisible Hand
- Producer/ Consumer surplus
- Elasticity
- Cross elasticity
- Elasticity of income
- Complementary good
- Substitute good
- Inferior good
- Normal good
- Price control
- Surplus/shortage
- Deadweight loss

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Interdisciplinary Connections

- Environmental Science Renewable resources
- Marine Studies I- fishing industry success/failure based on supply & demand
- Marine Science/ AP Marine Science- impact fish population has on price and quantity supplied/demanded
- Aquaculture and Resource Management- impact of consumer's preference on price and quantity demanded/supplied, substitutions/ complementary goods
- Aquatic Husbandry- Making choices as firm leader based on current market trends
- English III- changes in society can lead to changes of consumer preferences
- AP/ECE English Language and Composition- changes in American society can lead to changes of consumer preferences
- Algebra I- equations and graphing
- Algebra II- Interpreting data & graphs
- Topics in Mathematics: Business and Personal Finance- applying economic models to real life situations
- Geometry- calculating area of shape (deadweight loss, consumer & producer surplus)

Daily Learning Objectives with TWPS Activities

Students will be able to....

• Analyze demand curve and how market changes impact demand curve and quantity demanded.

• The school store has new products coming in that everyone is excited for. Most people are planning to buy the exclusive sweatshirt, only a few people want the new tee shirt. When the order comes in Dr. Spera realizes he made a terrible mistake and only ordered 5 sweatshirts

Analyze supply curve and how market changes impact supply curve and quantity demanded.

• *Explain why the demand curve is downward sloping.*

Draw and analyze a supply and demand model to explain how price and quantity are determined in a given market.***

- On the graph given, explain the change to supply and/or demand and create a scenario that could have caused the change.
- *Examine a current event that is impacting the demand curve, supply curve, or both and use a supply and demand graph to show the changes.*
- Given a list of goods identify relationships as complements, substitutes, inferior, or normal and explain why.
- Define and locate the producer and consumer surplus on a graph, calculate its numerical value, and identify the impact of taxes and subsidies.
 - Draw a supply and demand graph and label the consumer and producer surplus. Then based on the provided scenario show changes to the graph and consumer & producer surplus.
- Explain how taxes and subsidies change equilibrium price and quantity, how they are shared by consumers and producers, and their potential to create inefficiencies in the market.
 - FRQ 2005 #2 Part A, explain the definitions of consumer and producer surplus in addition to identifying their location on the graph. (B & C together as class)
- Apply knowledge of market changes to AP style multiple choice questions.
 - Extended multiple choice question: What steps should you take to answer an AP Microeconomics multiple choice questions.
- Analyze the ability of a price ceiling and price floor in creating shortages and surpluses in individual product markets.
 - Use a given current event that involves a price floor or ceiling. Explain the resulting shortage or surplus and analyze the benefit of this regulation to society.
- Interpret the meaning and impact of elasticity, cross elasticity of demand, and income elasticity of demand values, both mathematically and graphically, on producers and consumers ***
 - From the list of items on your errand list identify which ones you must buy and which you can substitute with something else.
 - Analyze the following graph explain if the good is elastic or inelastic. What product may this graph represent?
 - Identify the types of elasticity present in the given scenarios. What are you trying to determine in calculating the elasticity in each scenario.

- Apply knowledge of supply, demand, and elasticity to solve AP Style FRQ's.
 - If tomatoes are an input for pizza, what will happen to the supply and demand graph for pizza if the price of tomatoes increase? Demonstrate these changes on a properly labeled supply and demand graph.

Instructional Strategies/Differentiated Instruction

- **HLP:** Effective feedback
- HLP: Academically Productive Talk
- **HLP:** Write to Learn (TWPS)
- Homework: reading and practice problems
- Lecture with notes
- Close reading with annotations
- Accountable Talk discussions
- Graphic organizers
- Self-assessments
- Strategic grouping
- Rephrasing information for students
- Student choice
- Learning through competitive games
- Personal connections
- Problem sets with practice AP test questions'
- Graphing practice
- Hands on simulations of concepts
 - Supply and Demand in the classroom

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Assessments

FORMATIVE ASSESSMENTS:

- Daily Written Reflections/ Prompts
- Group Discussion
- Graphing Assignment (Supply & Demand, Elasticity, Consumer/Producer Surplus, Deadweight loss, price floor/ ceiling)
- Problem Set 2: Unit 2 Supply and Demand
 - MSMHS Rubric 3: Problem Solving

SUMMATIVE ASSESSMENTS:

- Released FRQ: 2016 #1
 - MSMHS Rubric 3: Problem Solving
- Problem Set 2- Supply and Demand
 - MSMHS Rubric 3: Problem Solving
- Quiz (EU 1 & 2)
- Unit Test

Unit Task

Unit Task Name: Released FRQ 2016

Description: Students will use information learned from this unit to help explain impact of elasticity of related goods (EU 2) and government price controls (EU 3) on supply and demand market models (EU 1) in order to answer a free-response advanced placement question looking at the interrelated markets of coffee, muffins, and bananas. Students will need to use different skills including graphing and calculation elasticity to accurately summarize the impacts of the scenarios on the discussed markets.

Evaluation: MSMHS Rubric 3: Problem Solving

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Unit Resources
 ACDC Economics: Youtube <i>Foundations of Economics</i>, Bade and Parkin: Excerpts & practice problems from chapter 4,5,6,7,8 (section 1 only) Released AP Microeconomics tests Laptops