



West Essex High School

West Greenbrook Road
North Caldwell, New Jersey 07006
973-228-1200

Contract for Advance Placement Course Enrollment 2023-2024

The primary purpose of this document is to ensure that both the student and parent/guardian are fully aware of the academic rigor, requirements, and expectations that are part of the AP course in which the student wishes to enroll.

Student's Name: _____

AP Course: *AP Macroeconomics*

Teacher: *Mr. Cardinale*

Dear Student and Parent/Guardian:

The above-named student is scheduled to take the specified AP course during the 2023-2024 school year. It is essential to understand that this is a rigorous college-level course. The level of intellectual maturity, ability, organizational skills, and intrinsic motivation required for success in this course is therefore considerable. There is an intensive homework load for this course which requires the completion of daily assignments, readings, and projects outside of class. The AP workload will have implications on any time that may be committed to other endeavors such as sports, clubs, extracurricular activities, and even other courses.

It is expected that students enrolled in an AP course will take the appropriate end-of-year College Board examination. Taking an AP course and exam is a collaborative effort between the student, the parent/guardian, the teacher, and the school. Each party plays an essential role and must make a sincere commitment to meet the demands of that role to ensure student success in an AP course. Consequently, it is critical that the student enrolls in this AP course with the desire to be challenged and that he/she understands the full scope of the expectations that will be placed on him/her as part of the academic requirements of each AP course.

The student agrees to:

- minimize absences as much as possible.
- work and study independently to make up for content and assignments missed due to absences.
- complete all assignments conscientiously, including those assigned over summer, winter, and/or spring break (if applicable).
- participate actively and thoughtfully in class discussions and activities.
- manage his/her time and effort to meet requirements for each AP course in which he/she is enrolled.
- make every effort to attend the teacher's AP Test Prep sessions that are held outside of the school day.
- put forth his/her best effort on practice examinations.
- take the examination and give his/her best effort to attain the highest grade of which he/she is capable.
- notify the teacher and parent/guardian immediately if he/she falls behind and seek extra help, as needed.



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The parent/guardian agrees to become familiar with and accept the AP course requirements and policies, to help his/her child organize study time in support of class assignments, and to regularly monitor his/her child's progress in the course.

The parent/guardian is aware that this is a challenging academic course taught at the college level and that, while students are generally encouraged to take AP courses, students who lack certain prerequisite courses and/or who do not possess the prerequisite skill sets, motivation, and/or a proper academic orientation may struggle in the course.

The parent/guardian agrees that his/her child is expected to take the AP examination for this course in May. *In the event the student does submit an AP exam (written or digital), Honors weighting will be reflected in the student's GPA on the final transcript.*

*****Important Reminder: During the testing period, students may sign in late or sign out early according to all standard attendance office procedures, but those absences will NOT be excused*****

The AP Teacher agrees to provide rigorous instruction and challenging course content as described in the AP Course Description and College Board-approved course syllabus.

Student and Parent/Guardian: Please sign and date the agreement and return it to the teacher for this course. (You will be provided with a copy of this agreement, and a copy will be kept on file with the teacher.)

I, J. Cardinale, understand and agree to the conditions outlined above.

Teacher Signature: *Joseph Cardinale* Date: *June 9, 2023*

I, _____, understand and agree to the conditions outlined above.

Student Signature: _____ Date: _____

I, _____, understand and agree to the conditions outlined above.

Parent/Guardian Signature: _____ Date: _____

AP Economics Summer Work

Teacher: Mr. Cardinale

Contact: jcardinale@westex.org

Course: AP Macroeconomics

Google Classroom:

Period 1: mwciuvq

Period 8: hqc7mah

Part I: 40 Points (**Formative**), Due Sunday **August 6, 2023** before 11:59pm via [Google Classroom](#)

- Complete the following for Modules 1-7
 - o Notes
 - o Tackle the Test MC and FRQ (Answers are in the back of the book)

If you have questions regarding the concepts or TTT answers – Email me.

Part II: 10 points each, 30 total points (**Formative**), Due dates vary.

Problem Sets will be posted on [Google Classroom](#) with the due dates listed below. They are designed to take you no longer than 1 hour each. I strongly recommend that you block out time and do them with a focus. They should also be handwritten, not typed. Upload your work to Google Classroom. The notes can be typed.

- Problem Set 1: **Intro to Economics, Comparative/Absolute Adv, Trade**– Due by 8/14
- Problem Set 2: **Introduction to Demand** – Due by 8/21
- Problem Set 3: **Changes in Equilibrium** – Due by 8/28

Part III: 30 Points, Summer Content Quiz (**Summative**) - Second Day of Class

- We will review summer content/problem sets on Day 1 of school, with a 30 point summative assessment on Day 2.
- This summer work was planned with value in mind. Any work we do has a purpose, so your attention to detail and focus will only pay dividends once the school year starts. We will only be reviewing this on the first day prior to the quiz. Thinking that you can learn this and catch up in a day/night is a big mistake!
- Every effort should be made by the student to finish the assignment on time over the summer break. If you are traveling or have another obligation which would prevent you from completing any assignment on time, please contact me so an alternative arrangement can be made for submission to receive credit

AP Economics – Problem Set 1

PPCs, Comparative/Absolute Advantage, Trades

1. When Tom uses all his resources to produce Candy, he can produce 50 units. When he uses all his resources to produce toothbrushes, he can produce 20.
 - a. Assuming Tom has a constant opportunity cost, draw his production possibilities curve.
 - b. Re-draw Tom's PPC if he were to have an increasing opportunity cost.
 - c. Label the following points on Tom's PPC:
 - i. Efficient (A)
 - ii. Inefficient (B)
 - iii. Unattainable (C)
 - d. Tom decides to get a girlfriend, and now has less time to allocate to candy and toothbrush production. What effect, if any, will this have on his PPC? Show this graphically.

2. Maria can read 20 pages of economics in an hour. She can also read 50 pages of sociology in an hour. She spending 5 hours per day studying.
 - a. Draw Maria's PPC for reading.
 - b. What is Maria's opportunity cost of reading 100 pages of sociology?

3. The US and Japanese workers can each produce 4 cars a year. An American worker can produce 10 tons of grain a year, whereas a Japanese worker can produce 5 tons of grain a year. Assume each country does this with 100 million workers.
 - a. For this situation, construct a PPC for the US and Japan.
 - b. For the US, what is the opportunity cost of 1 car? Of 1 ton of grain?
 - c. Which country has an absolute advantage in producing cars? Grain?
 - d. Which has a comparative advantage in producing cars? Grain?
 - e. Without trade, each country allocates half its workers to cars, and half to grain. What quantities will each produce under these circumstances?
 - f. If the US and Japan were to trade, who would specialize in what product? Explain.

4. Pat and Kris are college roommates. They spend most of their time studying (mostly for Econ), but they have some time for their favorite activities: making pizza and brewing root beer. Pat takes 4 hours to brew a gallon of root beer and 2 hours to make a pizza. Kris takes 6 hours to brew a gallon of root beer and 4 hours to make a pizza.
 - a. What is each roommate's opportunity cost of making pizza? Who has the absolute advantage in making pizza? Who has the comparative advantage of making pizza?

- b. If Pat and Kris trade foods with each other, who will trade away pizza for root beer?
- c. The price of pizza can be expressed in terms of gallons of root beer. What is the highest price at which pizza can be traded that would make both roommates better off? What is the lowest price? (I'm basically looking for a range of "prices" in which trade will occur)
5. An average worker in Brazil takes 20 minutes to produce 1 oz of soybeans and 60 minutes to produce 1oz of coffee. The average worker takes 50 minutes to produce 1 oz of soybeans and 75 minutes for 1 oz of coffee.
- Who has the absolute advantage in coffee? Explain.
 - Who has the comparative advantage in coffee? Explain.
 - If the two countries specialize and trade, who will import coffee? Explain.
 - Assume that the two countries trade and that the country importing coffee trades 2 oz of soybeans for 1 ounce of coffee. Explain why both countries will benefit from this.
 - Hint – Always remember that the opportunity cost of producing it yourself is the cost of NOT trading.
6. Are the following statements true or false?
- Two countries can achieve gains from trade even if one of the countries has an absolute advantage in the production of all goods.
 - Certain very talented people have a comparative advantage in everything they do.
 - If a certain trade is good for one person, it can't be good for the other person.
 - If a certain trade is good for one person, it is always good for the other person.
 - If trade is good for a country, it must be good for everyone in the country.
7. Suppose Atlantis is a small, isolated island in the South Atlantic. The inhabitants grow potatoes and catch fish. The accompanying table shows the maximum annual output combinations of potatoes and fish that can be produced. Obviously, given their limited resources and available technology, as they use more of their resources for potato production, there are fewer resources available for catching fish.

Output Options	Qty of Potatoes (pounds)	Qty of Fish (Pounds)
A	1000	0
B	800	300
C	600	500
D	400	600
E	200	650
F	0	675

- a. Draw a PPC with potatoes on the horizontal axis and fish on the vertical axis, and illustrate these options, showing points A-F.
- b. Can Atlantis produce 500 pounds of fish and 800 pounds of potatoes? Explain. Where would this point lie relative to the PPC? What would be needed to achieve this output combination?
- c. What is the opportunity cost of increasing annual output of potatoes from 600 to 800?
- d. What is the opportunity cost of increasing annual output of potatoes from 200 to 400?
- e. Explain why the answers to (c) and (d) are not the same. What does this imply about the slope of the PPC?

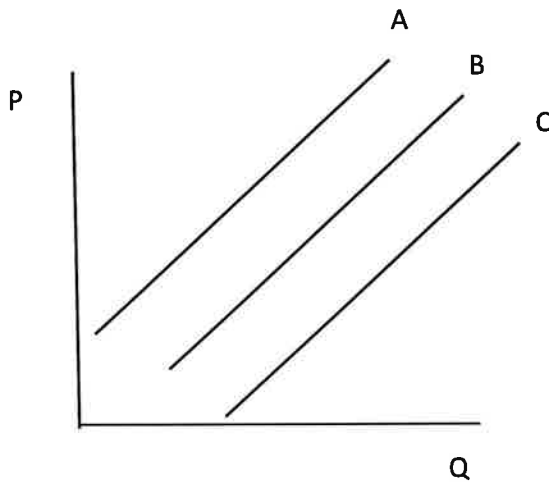
AP Economics – Problem Set 2

Introduction to Supply and Demand

1. In your own words (not the textbook), explain what the term “Ceteris Parabis” means and how it applies to supply and demand.
2. Draw a correctly labeled graph of a demand curve for widget. FUN FACT - Widgets are the general product that a lot of college economics professors use when teaching supply and demand. Assume widgets are used as part of toy production for the company Mattel Inc. Show graphically how each of the following will affect the market for widgets. It’s probably easiest to draw separate graphs for each problem.
 - a. Using points “a” and “b” on your curve, “a” as the original price and “b” as the new price, show graphically what a decrease in price would have on quantity demanded.
 - b. Around the holidays, widget consumption increases for the month of December. Show this effect graphically. Explain the reason for the shift.
 - c. Spin Master Inc., a Mattel Inc. competitor, lowers their prices. Explain the reason for the shift.
 - d. The US government imposes new laws that require a higher standard of widgets, which makes them more expensive to produce. Hint: if adding the supply curve to your graph makes this easier, feel free to include it.
3. Using the market for tomatoes, explain the reason behind each event that would cause a shift in demand. No graphs for this one.
 - a. A study reveals that tomatoes offset the chance of heart disease.
 - b. There is an influx of immigrants from Italy who need tomatoes to make their homemade sauce/gravy for their macaroni.
 - c. Consumers are expecting prices to increase during the winter months due to colder conditions nationally.
 - d. The price of lettuce, a substitute for tomatoes, has a 30% reduction in its price.
 - e. The overall income of Americans increases by 1.5%.
 - f. New technology allows tomato farmers to produce more tomatoes for the same cost.
4. Please draw a correctly labeled supply curve.
 - a. Explain a situation in which a supply curve would be perfectly inelastic (vertical)
 - b. Explain a situation in which a supply curve would be perfectly elastic (horizontal)
 - c. If there is an outward shift in demand, show on your graph the effect that will have on the price and quantity supplied.
 - d. How will the following affect a market’s supply curve:
 - i. Technology improvements
 - ii. 20% of producers go out of business.
 - iii. What about an increase in minimum wage?
5. Using the market for Speedos, should graphically explain the reason behind each even that would cause a shift in supply.
 - a. The stretchy material needed to make Speedos becomes 15% more expensive.

- b. The Speedo Manufacturer’s Union negotiates a new contract, which includes 2% raises across the board.
 - c. There is a huge boom in demand for Super Balls, cause their price to increase. Assume the material used for Speedos, is the same used in production of Super Balls.
 - d. As the summer comes to a close, what is the best strategy for Speedo in regards to their supply during the Summer? Maintain, increase, decrease? Explain.
 - e. Brokini, a European producer of a skimpy men’s bathing suits, comes to America to enter into the Speedo market.
6. There are going to be newspaper headlines that may or may not affect supply of Foreign and Domestic Cars. Use the given supply curves to answer the questions in the chart. Assume that you are starting at curve B. If there is no shift, then columns 2 and 3 are irrelevant.

Newspaper Headline	Shift? Y or N	Inc/Dec	Left/ Right	New Curve
1 – Auto Workers Union Agrees to Wage Cuts	Y	Inc	Right	C
2 – New robot Technology increases efficiency				
3 – Nationwide Auto Strike Began at Midnight				
4 – New Import Quotas Reduce Foreign Car Imports				
5 – Cost of Steel Rises				
6 – Auto Producer goes Bankrupt; Closes Operation				
7 – Buyers Reject New Models				
8 – National Income Rises 2%				



AP Economics – Problem Set 3

Changes in Equilibrium Through Supply and Demand

1. Use a supply and demand graph to explain each of the following statements:
 - a. When a cold snap hits Florida, the price of orange juice rises throughout the country.
 - b. When the weather turns warm in New England, the price of hotel rooms in the Caribbean drop.
 - c. When a war breaks out in the Middle East, the price of gas increases, and the price of a used Cadillac decreases.

2. Is the following statement correct? Explain.
 - a. An increase in the demand for notebooks raises the quantity of notebooks demanded but not the quantity supplied.

3. Consider the market for mini-vans. For each statement below, decrease how demand or supply will be affected, and the reason for the shift. (Make sure to use correct terminology for your shifts!) Show them each graphically.
 - a. People decide to have more children.
 - b. A strike by steelworkers raises steel prices.
 - c. Engineers develop new automated machinery for the production of minivans.
 - d. The price of sports utility vehicles rises.
 - e. A stock-market crash lower people's wealth.

4. Identify the flaw in this (very poor!) economic analysis:
 - a. "If more people go on a low-carb diet, the demand for bread will fall. The decrease in the demand for bread will cause the price of bread to fall. The lower price, however, will then increase the demand back to or past the original equilibrium. Americans may end up consuming more bread than they did initially!"

5. Consider the markets for DVDs, TV screens, and movie tickets.
 - a. For each pair, identify whether they are substitutes or complements
 - i. DVDs and TVs
 - ii. DVDs and Movie tickets
 - iii. TVs and Movie tickets
 - b. Suppose a technological advance reduces the cost of manufacturing TV screens. Draw a diagram to show what happens in the market for TV screens. Explain the reason for your shift.
 - c. Draw two more diagrams to show how the previous change in the market for TV screens will affect the market for movie tickets, and the market for DVDs.

6. Using supply and demand graphs, show the effect of the following events on the market for hoodies. Assume each event is independent from the rest.
- A hurricane in South Carolina damages the cotton crop.
 - The price of leather jackets falls.
 - All colleges require morning exercise in appropriate attire
 - New knitting machines are invented.
7. Suppose that the price of basketball tickets at your college is determined by market forces. Currently, the supply and demand schedules are as follows:

Price	Qd – Tickets	Qs – Tickets
\$4	10,000	8,000
\$8	8,000	8,000
\$12	6,000	8,000
\$16	4,000	8,000
\$20	2,000	8,000

- Draw the supply and demand curves. What do you notice about the supply curve? Explain why this is true.
- What are the equilibrium price and quantity of tickets?
- Your college plans to increase total enrollment by 5,000 students next year. The additional students will have the following demand schedule:

Price	Qd - Tickets
\$4	4,000
\$8	3,000
\$12	2,000
\$16	1,000
\$20	0

- Now add the old demand schedule and the demand schedule for the new students to calculate the new demand schedule for next year. What will the new equilibrium price and quantity be? Draw the new curve onto the graph from part (a) – explain the reason for the movement or shift that may have occurred.