

Econ21003-Studyguide

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October 2, 2026

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Introduction

The beginning is the most important part of a journey!

- [Syllabus](#)
- [Course Calendar](#)
- [Ten Principles of Economics](#)

Continue to the next page to see exam 1 study guide page!

1 Review for Exam 1

1.1 Key Concepts: define or contrast and compare

1.1.1 Chapter 1

- *Three* key economic ideas
- Efficiency vs Equality
- Technical vs Allocative efficiency
- Positive vs Normative Analysis
- Types of Economies
- Role of economic models
- Micro vs. Macro

1.1.2 Chapter 2

- Production Possibilities Frontier (PPF)
- Opportunity Cost
- Comparative advantage vs Absolute advantage
- Complete specialization
- Gains from trade
- Market system
- Circular flow diagram

1.1.3 Chapter 3

- Perfectly competitive markets
- Law of Demand / Law of Supply
- Supply and Demand curves vs. quantity supplied and quantity demanded.
- Supply and Demand schedules
- Effect of change in price – change in quantity supplied/demanded.
- Factors that shift Demand (external factors of Demand)
- Factors that shift Supply (external factors of Supply)
- Substitute vs complement and normal vs inferior
- Equilibrium – identifying and interpreting

- Interpreting shifts and double shifts

1.2 Sample Multiple Choice questions

1.3 Worksheet

1. Consider the following scenario: Saudi Arabia and the United States each have 100 worker hours per week to produce oil, corn, or a combination of both. The following table shows their production possibilities:

Country	Oil using 100 hours (barrels)	Corn using 100 hours (bushels)
Saudi Arabia	100	25
United States	50	100

- a. What is Saudi Arabia's opportunity cost of producing: 1 barrel of oil? _____
1 bushel of corn? _____
- b. What is the United States' opportunity cost of producing: 1 barrel of oil? _____ 1
bushel of corn? _____
- c. Who has the absolute advantage in oil production? _____
- d. Who has the absolute advantage in corn production? _____
- e. Who has the comparative advantage in oil production? _____
- f. Who has the comparative advantage in corn production? _____

Answer Key

2. Use the information from Question 1. Graph the Production Possibilities Frontier for both countries.

Answer Key

With oil on the x-axis and corn on the y-axis, Saudi Arabia's PPF has an x-intercept of 100 and a y-intercept of 25. The United States' PPF has an x-intercept of 50 and a y-intercept of 100. Both PPFs are linear, assuming that the opportunity cost is constant at every point along each PPF.

3.
 - a. Fill in the following table assuming *complete specialization* and a trade action of: Saudi Arabia trades 45 barrels of oil for 40 bushels of corn.

	Saudi Arabia		United States	
	Oil (barrels)	Corn (bushels)	Oil	Corn
Without Trade				
Production	50	12.5	25	50
Consumption	50	12.5	25	50
With Trade				
Production				
Trade Action				
Consumption				
Gains from Trade				
Increase in Consumption				

Answer Key

- b. The following table shows production and consumption of two countries for Lemonade and Pizza. If the terms of trade is 193 Pitchers of Lemonade to 110 pizzas, fill in the blank given by the letters if each country completely specializes in the good in which it has the applicable advantage.

	U.S.		China	
	Lemonade in Pitchers	Pizza	Lemonade in Pitchers	Pizza
Production & Consumption without Trade	200	100	180	120
Production with trade	400	0	0	240
Trade Action	a	b	c	d
Consumption with trade	e	f	g	h
Gains from trade	i	j	k	l

Answer Key

4. Graph the supply and demand curves using the following supply and demand schedule. Label the equilibrium price and quantity.

Price	Quantity Demanded	Quantity Supplied
\$4	10,000 tickets	6,000 tickets
8	9,000	7,000
12	8,000	8,000
16	7,000	9,000
20	6,000	10,000

- Answer if there is shortage or surplus at each price of the good

Answer Key

Price	Qd	Qs	Shortage
4	10000	6000	4000
8	9000	7000	2000
12	8000	8000	0
16	7000	9000	-2000
20	6000	10000	-4000

5. Effect of Shift of Demand and Supply on Eq'm Price and Quantity:

Each of the events listed below has an impact on the market for smartphones. For each event, identify which curve is affected (supply or demand or both for smartphones), the direction in which it shifts, and the resulting impact on the equilibrium price and quantity of smartphones.

- The price of tablets increases.
- Consumers' incomes decrease, and smartphones are a normal good.
- The price of semiconductor chips used to manufacture smartphones increases.
- A new social trend increases consumers' preference for smartphones.
- Consumers expect the price of smartphones to fall in the future.
- A technological advance in the manufacture of smartphones occurs.
- The prices of smartphone cases and wireless earbuds are reduced.

Answer Key

- Demand shifts right, equilibrium price goes up, quantity goes up.
- Demand shifts left, equilibrium price goes down, quantity goes down.
- Supply shifts left, equilibrium price goes up, quantity goes down.

- d. Demand shifts right, equilibrium price goes up, quantity goes up.
- e. Demand shifts left, equilibrium price goes down, quantity goes down (currently).
- f. Supply shifts right, equilibrium price goes down, quantity goes up.
- g. Demand shifts right, equilibrium price goes up, quantity goes up.

2 Review for Exam 2

2.1 Definitions and Vital Concept

Chapter 8: GDP

- Gross Domestic Product (GDP) — what does it measure?
- Final good and intermediate good
- Total Production = Total Income = Total Spending
- Components of GDP: What is included in C, I, G, NX?
- Limitations or imperfections of GDP
- Calculating Nominal GDP, Real GDP, and the GDP Deflator
- Calculating inflation from Nominal and Real GDP
- Other measures of total production and total income: GNP, National income, disposable income, etc

Chapter 9: Unemployment and Inflation

- How we segment the population with regards to Unemployment
- Household survey and employment survey
- Calculating unemployment rate, labor force participation rate, and the employment-population ratio
- Discouraged workers
- Distinguishing the three types of unemployment: Frictional, Structural and cyclical
- Full employment and the Natural Rate of Unemployment
- Calculating the Consumer Price Index (CPI)
- Calculating inflation
- Indexation
- Shortcomings or imperfections of CPI: Substitution Bias, Quality Bias, New goods Bias and Outlet Bias
- Nominal vs. Real Interest rates and their relationship
- Uses of CPI: Converting prices to today's dollars, converting nominal variables to real variables

Chapter 10: Longrun Economic Growth, Saving + Investment, Business Cycle

- Distinguish GDP, real GDP and real GDP per capita
- Calculating growth from one year to the next
- “Constant growth rate rule”: given the economy grows at different rate for several years, what would be the equivalent constant rate of growth?
- Two ways of average growth rates: simple and compound
- Rule of 70
- Determinants of long-run economic growth
- Actual vs. Potential GDP
- Financial System: financial markets vs. financial intermediaries
- Direct finance vs. indirect finance
- Savings (private, government and national/aggregate saving) and Investment Identity
- Distinguish the difference between Saving and investment
- The Market for Loanable Funds— Analyzing effects of shifts and movements along.
- Crowding out

2.2 Sample Multiple Choice

1. Suppose GDP in 2020 was \$21 trillion and GDP in 2021 was \$22.5 trillion. By what percentage did the economy grow from 2020 to 2021?
 - a. 5.3%
 - b. 6.5%
 - c. -7.1%
 - d. 7.1%
2. GDP is an imperfect measure of a country’s well-being because it does not capture
 - a. The amount of government involvement in the economy
 - b. How much leisure time a country takes.
 - c. How much a country spends on goods.
 - d. GDP is a perfect measure of well-being.
3. Which of the following best describes inflation?
 - a. Severe, negative decline in the level of prices in an entire economy.
 - b. An outburst of high changes in the level of prices in an entire economy.
 - c. A unit-free number derived from the price level over a number of years.
 - d. A general and ongoing rise in the level of prices in an entire economy.
4. Suppose an economy’s GDP has a constant growth rate of 4%. How long will it take for the economy’s GDP to double?

- a. 17.5 years
 - b. 175 years
 - c. 14 years
 - d. 35 years
5. Which of the following best describes Potential GDP?
- a. positive short run relationship between the price level for output and real GDP, holding the prices of inputs fixed.
 - b. The amount of total spending on domestic goods and services in an economy.
 - c. The maximum quantity that an economy can produce given full employment of its existing levels of labor, physical capital, technology, and institutions.
 - d. The total quantity of output firms will produce and sell.
6. T/F: While the sale price of old car by a dealer is not part of GDP, the dealer's commission is
7. If GDP 90 million, Consumption 50 million, Investment 15 million, Government purchases 20 million and exports 8 million, what is the value of imports

2.3 Workout

1. Consider the following table:

Year	Price of Milk	Quantity of Milk	Price of Honey	Quantity of Honey
2013	\$2	100 quarts	\$2	50 quarts
2014	\$3	200	\$4	100
2015	\$5	250	\$5	200

- a. Calculate nominal GDP for 2015:
 - b. Calculate real GDP for 2015 using 2013 as the base year:
 - c. Calculate the GDP deflator for 2015 using 2013 as the base year:
 - d. What is the inflation rate from 2013 to 2014? From 2014 to 2015?
2. The Bureau of Labor Statistics announced in October 2018, of all adult residents of Letterkenny, 3,500 were employed, 500 were unemployed, and 1,000 were not in the labor force. (Note: you will need to calculate the adult population and labor force)
- a. Calculate the unemployment rate:
 - b. Calculate the labor-force participation rate:

3. Consider the following table: *Note that a basket consists of 100 quarts of milk and 50 quarts of honey.*

Year	Price of Milk	Quantity of Milk	Price of Honey	Quantity of Honey
2013	\$1	150 quarts	\$2	78 quarts
2014	\$2	195	\$3	102
2015	\$3	232	\$4	118

- Using 2013 as a base year, calculate the CPI in 2014:
 - Using 2013 as a base year, calculate the CPI in 2015:
 - Calculate the inflation rate from 2014 to 2015:
4. Suppose your mother received a salary of \$45,000 in 1991. What is the value of that salary in 2016 dollars if the CPI in 1991 was 136 and the CPI in 2016 was 240?
5. Real GDP per capita in the United States grew at rate of 2.25 percent from 2010 to 2011. If the United States had continued to grow at this rate how long would it have taken for the economy to double?
6. Consider the following economic information of the economy of Asgard:
- GDP = \$500 million
 - Consumption = \$350 million
 - Investment = \$100 million
 - Government Purchases = \$50 million
 - Taxes = \$75 million
 - Transfer Payments = \$40 million

Calculate public saving, private saving, and national (aggregate) saving

7. Draw the graph of the Market for Loanable Funds that demonstrates the effects on interest rate and quantity of investment when there is:
- crowding out due to government spending or reduction of taxation
 - when government mandates 401K in all firms

A TBA