

Study Guide

ECON 2102 Principles of Microeconomics

Chapter 1

1. The Economic Problem: Scarcity and Choice

--- Scarcity: A situation in which unlimited wants exceed the limited resources available to fulfill those wants

--- Economics: study of the choices people make to attain their goals, given their scarce resources

--- Trade-offs: Choosing one option means giving up another due to limited resources.

--- Opportunity Cost: The next-best alternative foregone when making a choice.

2. Key Economic Ideas

--- People are rational.

--- People respond to economic incentives.

--- Optimal decisions are made at the margin

3. The Three Key Economic Questions

---What to produce? (Allocation of resources)

--- How to produce? (Production methods: labor vs. capital-intensive)

--- For whom to produce? (Distribution of goods and services)

4. Economic Models and Assumptions

- Economic Model: A simplified representation of reality used to analyze economic problems.
- Assumptions in Economics:
 - o Ceteris Paribus (holding other variables constant).
 - o Rational Behavior: Individuals act in their own self-interest.

- o Marginal Analysis: Decision-making based on additional (marginal) benefits and costs.

5. The Three Types of Economic Systems

- Market Economy (Capitalism): Decisions made by households and firms interacting in markets.
- Centrally Planned Economy (Communism/Socialism): Government makes all economic decisions.
- Mixed Economy: Combination of market and government control (e.g., U.S., Europe).

6. The Role of Incentives and Marginal Thinking

- Incentives Matter: People respond to rewards and punishments.
- Marginal Benefit vs. Marginal Cost:
 - o If $MB > MC$, the action should be taken.
 - o If $MB < MC$, the action should not be taken.

7. Positive vs. Normative Economics

- Positive Economics: Describes facts and relationships (objective, testable).
 - o Example: "Higher taxes on cigarettes reduce smoking."
- Normative Economics: Includes opinions and value judgments (subjective).
 - o Example: "The government should increase minimum wage."

8. Difference between Microeconomic and Macroeconomics

Chapter 2

1. Production Possibilities Frontier (PPF)

--- A curve showing the maximum attainable combinations of two goods that can be produced with available resources and technology.

--- Concepts:

- a. Efficiency (points on the PPF)
 - b. Inefficiency (points inside the PPF)
 - c. Unattainable points (outside the PPF)
 - d. Opportunity cost (slope of the PPF)
2. How economic growth shifts the PPF outward (in one industry or both industries)
 3. Increasing marginal opportunity cost vs. constant opportunity cost
 4. Comparative Advantage and Trade

--- Absolute Advantage: When one producer can make more of a good than another using the same resources.

--- Comparative Advantage: When a producer has a lower opportunity cost of producing a good than another.

--- Gains from Trade:

- o Specialization based on comparative advantage increases total production.
- o Both parties benefit from trade even if one has an absolute advantage in both goods.

5. Know how to draw PPF and calculate opportunity cost based on the information provided

6. Know how to find out which party has an absolute or comparative advantage (Please review practice questions uploaded into Canvas)

7. Market System

---Definition of market

---Four factors of production

8. Circular Flow Diagram

--- Illustrates the interaction between households, firms and markets and shows how resources and money flow in an economy

---Two players: Firms and Households; Two markets: Product market and input market.

---Understand that firms are buyers and households are the sellers in input market and firms are the sellers and households are the buyers in product market

9. Different types of economies

--- Free Market Economy:

- Resources are allocated through prices and voluntary exchange.
- Adam Smith's Invisible Hand: Self-interested behavior leads to efficient outcomes.

--- Centrally Planned vs. Market Economies:

- Centrally planned economies involve government decision-making.
- Market economies rely on supply and demand.

--- Mixed Economies: Have both market and government influences.

10. The Role of Entrepreneurs and Property Rights

--- Entrepreneurs: Innovators who take risks to develop new products and businesses.

--- Property Rights: Legal protection of ownership encourages investment and innovation.

Chapter 3

1. Market demand
 - the demand by all the consumers of a given good or service.
2. Demand Schedule and Demand Curve
3. Difference between Demand (D) and Quantity Demanded (Qd)
4. Law of demand
5. Why demand curve downward sloped in general?
 - Substitution Effect
 - Income Effect
6. Ceteris paribus
7. Shift in demand curve vs. Movement along the demand curve
8. Know how variables shift market demand
 - Income (normal goods vs inferior goods)
 - Price of related goods (complements vs. substitutes)
 - Taste
 - Population and demographics
 - Expected future prices
 - Natural Disasters and Pandemics
9. A Change in Demand versus a Change in Quantity Demanded
 - Keep in mind: Only changes in the price of the good itself will cause a movement along the demand curve, i.e. cause Qd to change. Changes in other variables, as listed above in 8, will shift the demand curve.)
10. Supply Schedule and Supply Curve
11. Difference between Supply (S) and Quantity Supplied (Qs)
12. Law of Supply
13. Know how variables shift market supply
 - Prices of inputs

- Technological change
- Prices of related goods in production
- Number of firms in the market
- Expected future prices
- Natural disasters and pandemics

14. A Change in Supply Versus a Change in Quantity Supplied
15. Shifts of a Curve versus Movements Along a Curve
16. Market equilibrium, equilibrium price and equilibrium quantity
17. Market has shortage when price is below equilibrium price ($Q_d > Q_s$)
18. Market has surplus when price is above equilibrium price ($Q_s > Q_d$)
19. The Effect of Demand and Supply Shifts on Equilibrium

--- Know how to use demand and supply diagram to analyze when any variable changes, how the demand and (or) supply curve will be shifted and to which direction.

--- Find out the new equilibrium and how the new equilibrium price and quantity will be changed, compared to the old market equilibrium.

Chapter 6

1. Price Elasticity of Demand and Its Measurement

$$\text{Price elasticity of demand} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

Elasticity (in absolute value)

>1, demand is price elastic (demand curve is relatively flat)

=1, demand is price unit elastic

<1, demand is price inelastic (demand curve is relatively steep)

=0, demand is price perfectly inelastic (demand curve is vertical)

=infinity, demand is price perfectly elastic (demand curve is horizontal)

2. Midpoint formula for Elasticity

$$\text{Price elasticity of demand} = \frac{(Q_2 - Q_1)}{\left(\frac{Q_1 + Q_2}{2}\right)} \div \frac{(p_2 - p_1)}{\left(\frac{p_1 + p_2}{2}\right)}$$

(Please refer to PPT slide page 10, 11 and 12 for example.)

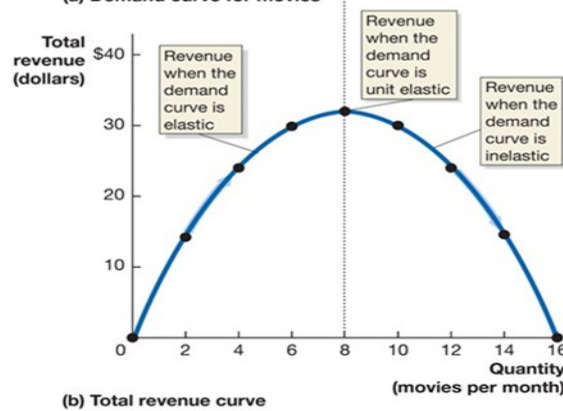
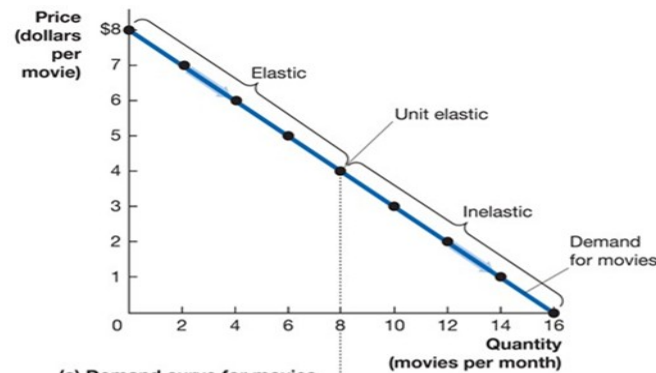
3. The Determinants of the Price Elasticity of Demand

- a. Availability of close substitute
- b. Passage of time (More price elastic in the long run than in the short run.)
- c. Luxury or necessity good
- d. Market definition
- e. Share of the budget

4. The Relationship between Price Elasticity of Demand and Total Revenue

Blank	Absolute Value of Price Elasticity	Effect on Total Revenue of an Increase in Price
Elastic	Greater than 1	Total revenue falls
Inelastic	Less than 1	Total revenue rises
Unit elastic	Equal to 1	Total revenue unchanged

5. Elasticity Is Not Constant along a Linear Demand Curve



6. Other Demand Elasticities
 - a. Income elasticity of demand
 - Positive but less than 1 for normal and necessity good
 - Positive but larger than 1 for normal and a luxury good
 - Negative for inferior goods
 - b. Cross-price elasticity of demand
 - Positive for substitutes
 - Negative for complements
 - Zero for unrelated goods
7. The Price Elasticity of Supply and Its Measurement

$$\text{Price elasticity of supply} = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$$

8. Determinants of the Price Elasticity of Supply
 - Time period
9. Elasticity (in absolute value)
 - >1, supply is price elastic (supply curve is relatively flat)
 - =1, supply is price unit elastic
 - <1, supply is price inelastic (supply curve is relatively steep)
 - =0, supply is perfectly inelastic (supply curve is vertical)
 - =infinity, supply is price perfectly elastic (supply curve is horizontal)