

# EE211

# PRINCIPLES OF MICROECONOMICS

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Topic 1: Introduction

# About the Instructor

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- Education:
  - B.A. (Economics), McGill University, Canada
  - M.A. (Economics), University of British Columbia, Canada
  - Ph.D. (Applied Economics), University of Minnesota, USA
- Fields of interest:
  - Health economics
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# About the Students

- Have you taken microeconomics in high school?
- Have you studied in math-science program? Others?
- Are you from Bangkok? Other regions?
- Anyone from international schools? Thai schools?

**\*\* Please fill out student information sheet via google form.\*\***

# Course Contents

- Introduction to economics
- Demand, supply, and equilibrium
  - Elasticities
  - Consumer surplus, producer surplus, and market efficiency
  - Application on demand and supply; government policies
- Theory of consumer choice
- Production and cost in the short and long run
- Market structure
- Factor markets
- Market failures

# Textbooks & Class Materials

- Textbooks:

- Mankiw, N.G. *Principle of Microeconomics*, 5th ed. Thompson South-Western, 2009.
- Lipsey, R.G., C.T.S. Ragan, and P.A. Storer. *Economics*, 13th ed. Pearson Addison Wesley, 2008.
- Pindyck, R. S., & Rubinfeld, D. L. (2018). *Microeconomics*. Upper Saddle River, N.J: Pearson/Prentice Hall.
- Student resources and supplemental readings are listed in the course syllabus.

- Mindtap (Supplemental)

Course URL: <https://login.cengagebrain.com/course/MTPNQPWNL5D1>

Course Key: TBA

**\*\*Lecture notes, practice problems (and solutions) for each topic, and other materials will be uploaded on BE-moodle.**

# Course Organization

- Meet online every Tuesday and Thursday, 9:30 – 11:00 am.
- Lectures-based style, with regular quizzes and practice problems
  - Please turn on video and mute during the lecture.
  - Class participation and own practices are highly encouraged.
  - Students are encouraged to practice online via Mindtap.
- There are two sections, quizzes (via google classroom) are independent, but at least 50% of midterm and final exams are the same.

# Teaching Platform

- **Teaching Materials Platform :**

Zoom (<https://zoom.us/j/91466419079>)

Meeting ID: 914 6641 9079

- **Teaching Materials Platform:**

BE Moodle (Enrollment key: 0135)

- **Quick communication:** Please join this LINE group



# Assessment

- **Quizzes (10 %)**
  - 5 quizzes in total – 4 best ones will be counted in your quiz score.
- **Midterm Exam (40%)** – October 2, 2021 (9:00 – 11:00 hrs)
- **Final Exam (50%)** – December 17, 2021 (9:00 – 11:30 hrs)

# Goals of This Course

- By the end of the course, the students should:
  - Understand consumer behavior.
  - Understand firm behavior.
  - Analyze different types of market structures (monopoly, oligopoly and a competitive market).
  - Understand how to apply economic principles to a range of policy questions.
- You should develop skills needed to solve the problems related to the above topics, with an emphasis on *intuition*.

# Today's Topics

- What is economics?
- The basic economic problems
- Microeconomics vs. macroeconomics
- Circular flow
- Production possibility curve (PPC)
- Economists' tool kits
- Methodology of studying economics

# What is Economics?

- *“Economics is a study of mankind in the ordinary business of life.”*

- Alfred Marshall

- *“Economics is the study of how people and society chooses to employ scarce resources that could have alternative uses in order to produce various commodities and distribute them for consumption, now or in the future, among various persons and groups in society.”*

-Paul A. Samuelson

- Lipsey et al.’s textbook:

*Economics is the study of the use of scarce resources to satisfy unlimited human wants.*

# Resources

- **Resources** or factors of production:
  1. Land
  2. Labor
  3. Capital
- **Production** – The act of making goods and services.
  - Goods are tangible commodities.
  - Services are intangible commodities.
- **Consumption** – The act of using goods and services to satisfy wants.

# Basic Economic Problems

- What to produce?
  - Problem of resource allocation
- How to produce?
  - Problem of production
- For whom to produce?
  - Problem of distribution
- The allocation of resources is affected by the workings of the *price system* and *government policies*.

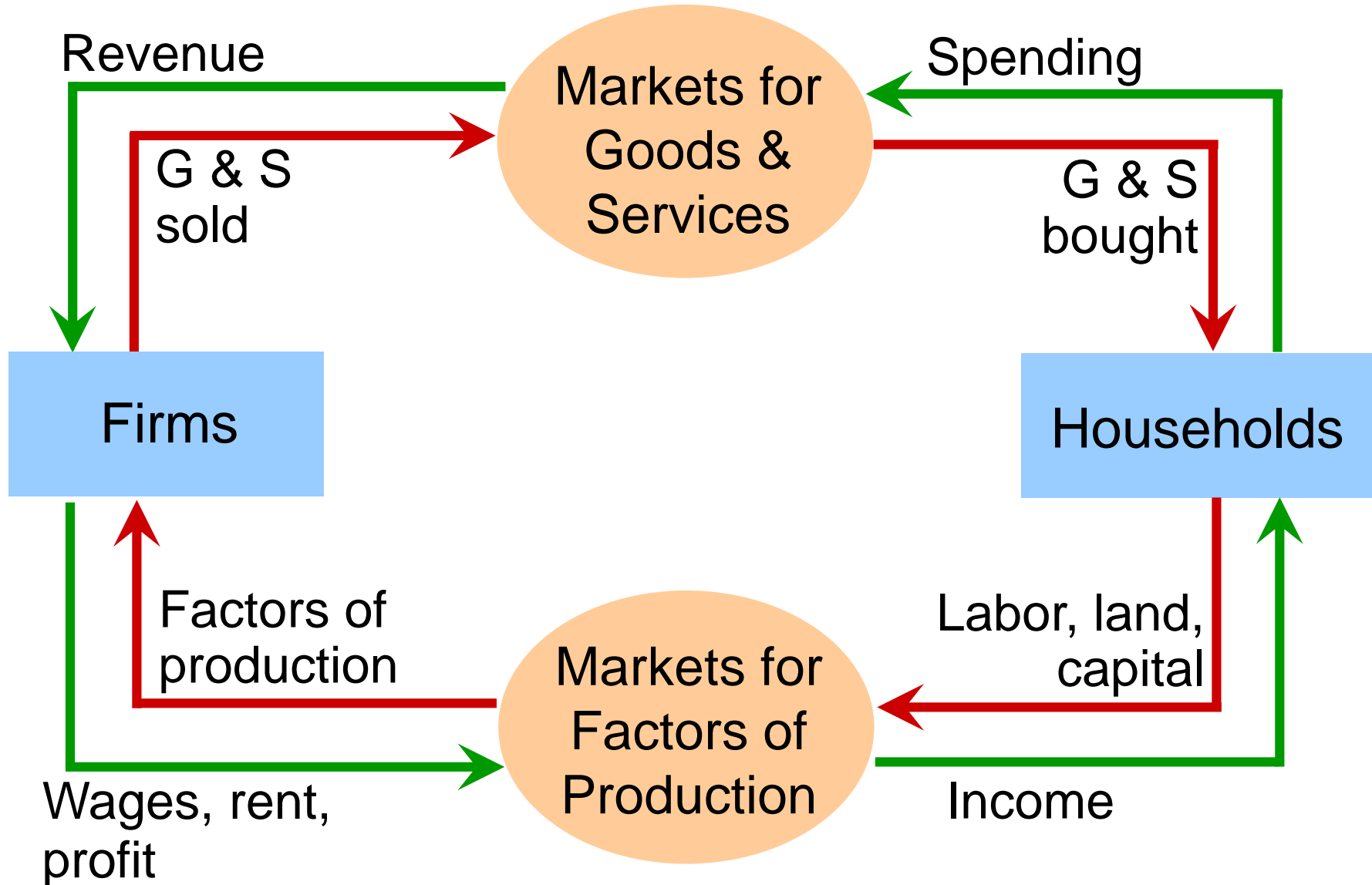
# Microeconomics vs. Macroeconomics

- **Microeconomics** Branch of economics that deals with the behavior of individual economic units—consumers, firms, workers, and investors—as well as the markets that these units comprise.
- **Macroeconomics** Branch of economics that deals with aggregate economic variables, such as the level and growth rate of national output, interest rates, unemployment, and inflation.

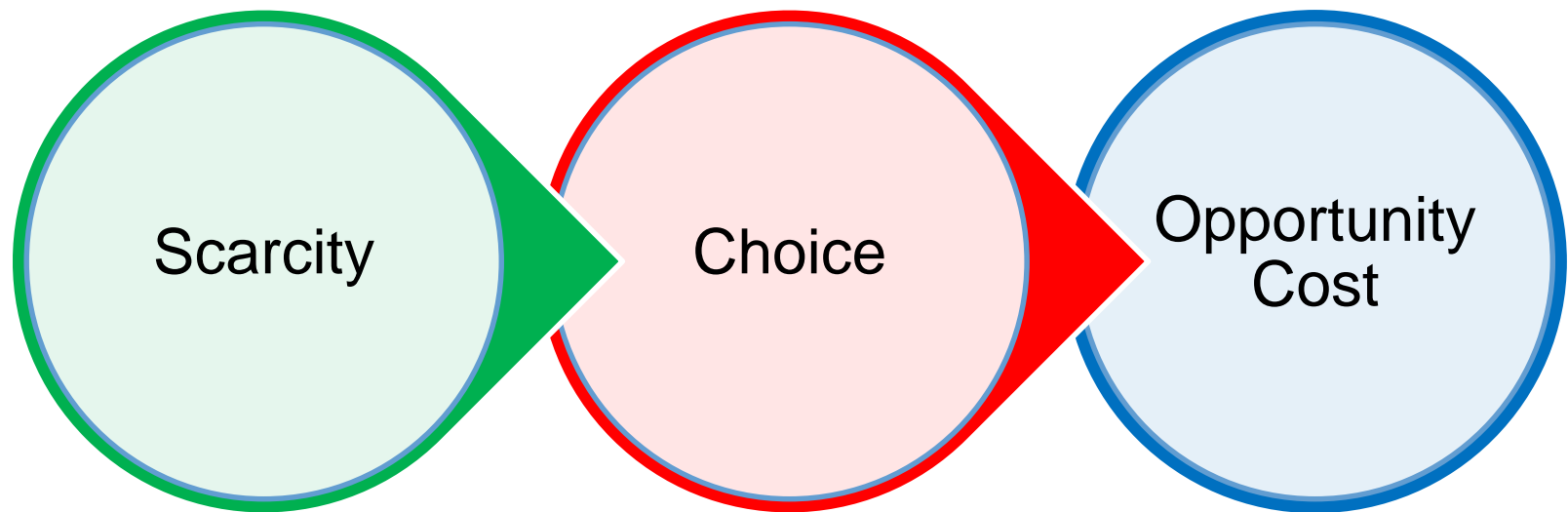
# Theme in Microeconomics: Price and Market

- Microeconomics describes how prices are determined.
- In a **market economy**, prices are determined by the interactions of consumers, workers, and firms. These interactions occur in markets—collections of buyers and sellers that together determine the price of a good.
- In a **centrally planned economy**, prices are set by the government.
- In most cases, countries have mixed economy.

# The Circular-Flow Diagram



# Basic Economic Concepts



# Scarcity, Choice, & Opportunity Cost

- **Scarcity** means that society has limited resources and therefore cannot produce all the goods and services people wish to have.
- Scarcity implies that **choices** must be made (i.e. people face trade-offs), and making choices implies the existence of costs.
- **Opportunity cost** is the cost of using resources for a certain purpose, measured by the benefits given up by not using them in the next best alternative use.  
i.e., *the cost of something is what you give up to get it.*

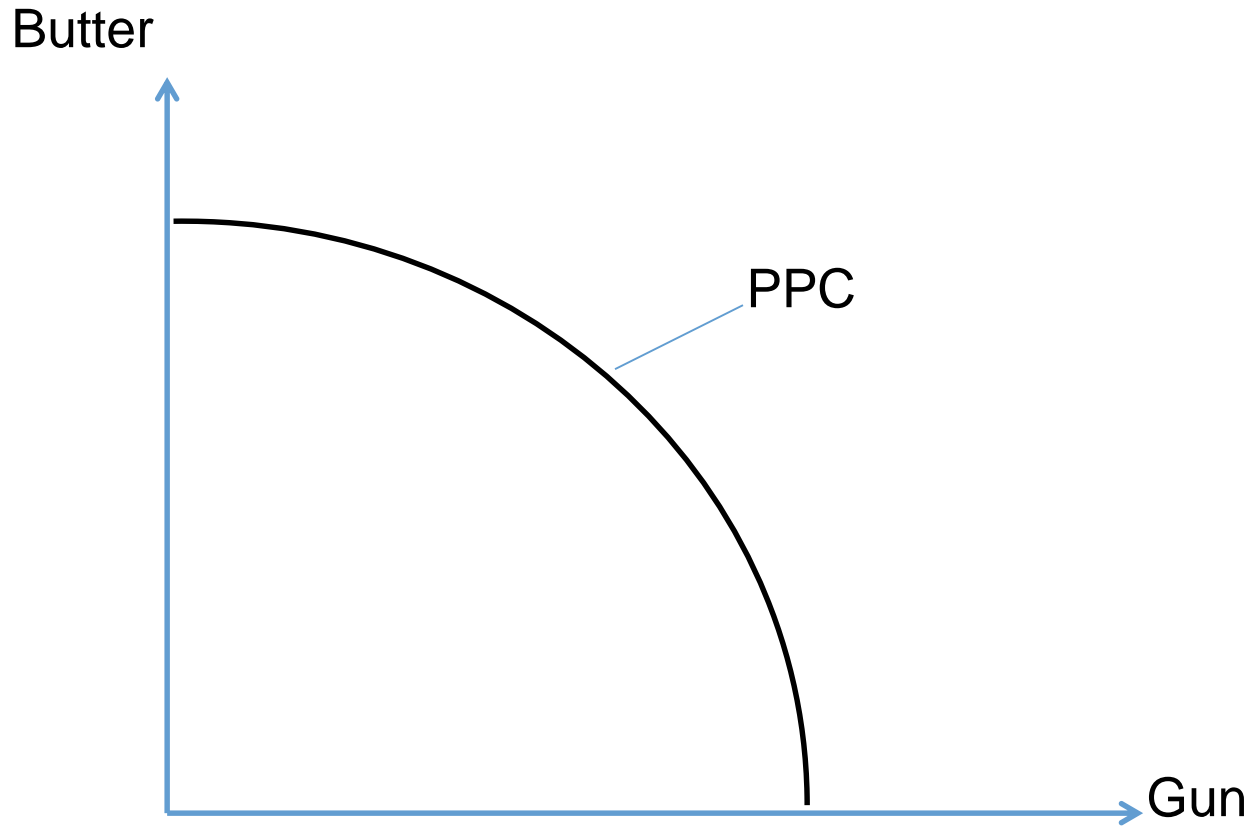
# Example of Opportunity Cost

- What is the opportunity cost of your 4-year study in the BE program?

# Production Possibilities Curve (PPC)

- **Production possibilities curve** – a curve that shows which alternative combinations of commodities that can be attained if all available resources are used efficiently.
- Assumptions:
  - All resources are fully employed.
  - There are 2 outputs.
  - There are limited resources.
  - Full *efficiency*
  - Fixed technology

# Illustration: PPC



# How does a PPC illustrate scarcity, choice, and opportunity cost?

- Scarcity
  - The unattainable combinations outside the curve
- Choice
  - The need to choose among the alternative attainable points along the curve
- Opportunity cost
  - The negative slope of the curve

# Example: PPC

- Producing one computer requires 50 hours labor.
- Producing one ton of wheat requires 10 hours labor.

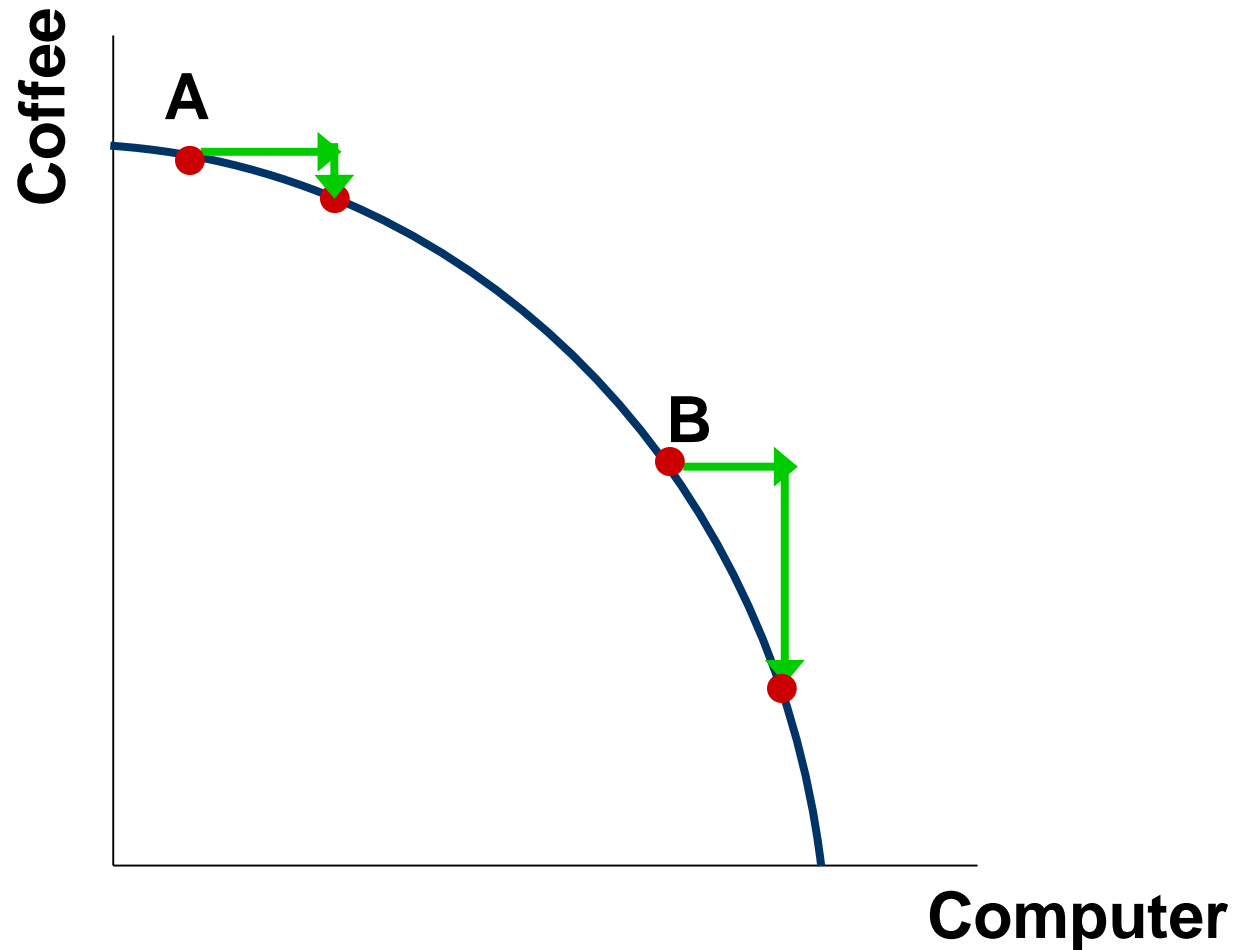
	Employment of labor hours		Production	
	Computers	Wheat	# of Computers	Tons of Wheat
A	5,000	0	100	0
B	4,000	1,000	80	100
C	2,500	2,500	50	250
D	1,000	4,000	20	400
E	0	5,000	0	500

# Example: PPC

# The Shape of the PPC

- The PPC could be a straight line, or bow-shaped
- Depends on what happens to opportunity cost as economy shifts resources from one industry to the other.
  - If opportunity cost remains constant, PPC is a straight line.
  - If opportunity cost of a good rises as the economy produces more of the good, PPC is bow-shaped.
    - Why?

# Example: Bow-Shaped PPC



# Economic Growth and Changes in the PPC

# Economists' Tool Kit: Equilibrium Analysis

- **Equilibrium** is a state of balance between opposing forces or actions (Merriam-Webster Definition). It is a situation characterized by **a lack of tendency to change**.
- Example: Economic equilibrium

# Economists' Tool Kit:

## Comparative Static Analysis

- **Comparative statics** is the comparison of two different economic outcomes, before and after a change in some underlying exogenous parameter.
- “**ceteris paribus**” - a Latin phrase meaning “other things equal” or “other things held constant”.
- Example:

# Economists' Tool Kit:

## Constrained Optimization

- **Producer**
  - Objective: Maximize profit – under limited resources
  - Objective: Minimize cost – under quantity requirement
- **Consumer**
  - Objective: Maximize utility – under income constraint

# Methodology of Studying Economics: Theories and Models

- In economics, explanation and prediction are based on theories. *Theories* are developed to explain observed phenomena in terms of a set of basic rules and assumptions.
  - E.g. Theory of consumer behavior
- A *model* is a mathematical representation, based on economic theory, of a firm, a market, or some other entity.
  - E.g. A consumer's utility is characterized by:  $U=f(x, y)$

# Methodology of Studying Economics:

## Positive vs. Normative Statements

- **Positive economics**
  - Examines questions of what was, what is, what will be
  - Seeks to explore facts, how the economy works
- **Normative economics**
  - Examines questions of what should be, what ought to be
  - Depends on value judgements

# Example:

## Positive Vs. Normative Statements

Which statement is positive, and which is normative?

- Fat tax leads to better health of the population.
  - Positive
- Government should impose fat tax on sweetened drinks.
  - Normative
- The majority of the population would not want the government to impose fat tax.
  - Positive