Relevant Readings from the Required Textbook:
- Chapter 2, *Fundamental Economic Questions and Gains from Specialization*

Definitions and Concepts:
- **goods and services** – outputs of the production process, such as food, clothing, shelter, healthcare, education, and entertainment
- **factors of production** – inputs in the production process, broadly categorized as land, labor, and capital
- **production** – the process by which inputs (i.e., factors of production) are transformed into an output (i.e., a good or service)
- **households** – the decision making entities whose primary objective is to obtain benefits from consuming goods and services
- **firms** – the decision making entities whose primary role is to produce goods and services for consumption by households
- **Three Fundamental Economic Questions** – when it comes to deciding how to use scarce productive resources, every society must address three fundamental economic questions: (i) What to produce? (production decision), (ii) How to produce it? (resource use decision), and (iii) For whom to produce it? (distributional decision)
- **production decision** – of all the different combinations of goods and services that we could produce, what specific combination will we produce?
- **resource use decision** – which productive resources will be used to produce which goods and services?
- **distributional decision** – who gets to consume the goods and services that we have chosen to produce?
- **production possibilities frontier** – a curve that summarizes the limits of production that a society faces by illustrating the maximum amount of one good that can be produced for every possible level of production of another good.
- **attainable output combination** – a combination of goods that can possibly be produced by a society with its available productive resources and technology (such combinations are on or below the PPF).
- **unattainable output combination** – a combination of goods that cannot possibly be produced by a society with its available productive resources and technology (such combinations are beyond the PPF).
- **productive efficiency** – a situation in which it is NOT possible to increase the amount produced of any good, without decreasing the amount produced of some other good (in such cases the society will be producing a combination of outputs on its PPF)
- **productive inefficiency** – a situation in which it is possible to increase the amount produced of some good, without decreasing the amount produced of any other good (in such cases the society will be producing a combination of outputs below its PPF).
• **absolute advantage** – a producer has an **absolute advantage** in the production of a good if she can produce more output than another producer using the same amount of inputs.

• **opportunity cost** – a general concept that refers to the cost of giving up the best alternative that must be foregone in order to do or acquire something; it measures the value of the next best use of the resources used to undertake (and provides the truest measure of the cost of engaging in) the activity being considered.

• **comparative advantage** – a producer has a **comparative advantage** in the production of a good if her opportunity cost of producing the good is lower than the opportunity cost of another worker for producing the same good.

• **Law of Comparative Advantage** – a guide for allocating scarce productive resources to various tasks, which states that when increasing the production of a good, a society should do so by using the available productive resource with the lowest opportunity cost (applying this rule allows a society to achieve productive efficiency).

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**Preliminary Circular Flow Diagram:**

![Circular Flow Diagram](image_url)
Computation of O.C.’s and sketching of PPF’s in “2 Person, 2 Good Model”:

Example: Two individuals (Cindy and Dave) produce two goods (Bowling Balls and Steaks). Consider their production decision over the course of a workweek. Each person has “one unit of labor” which they can continually split among the two tasks.

<table>
<thead>
<tr>
<th></th>
<th>Bowling Balls</th>
<th>Steaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cindy:</td>
<td>80 per week</td>
<td>20 per week</td>
</tr>
<tr>
<td>Dave:</td>
<td>6 per week</td>
<td>12 per week</td>
</tr>
</tbody>
</table>

- Cindy’s O.C.’s: \( OC^S_C = \frac{\text{Decrease}_{BB}}{\text{Increase}_{S}} = \frac{80}{20} = 4 \) and \( OC^{BB}_C = \frac{\text{Decrease}_{S}}{\text{Increase}_{BB}} = \frac{20}{80} = \frac{1}{4} \)
- Dave’s O.C.’s: \( OC^S_D = \frac{\text{Decrease}_{BB}}{\text{Increase}_{S}} = \frac{6}{12} = \frac{1}{2} \) and \( OC^{BB}_D = \frac{\text{Decrease}_{S}}{\text{Increase}_{BB}} = \frac{12}{6} = 2 \)
- “Individual PPF’s” (without specialization):

**Absolute Advantage:**
- Cindy has an A.A. in producing bowling balls since: 80>6.
- Cindy has an A.A. in producing steaks since: 20>12.

**Comparative Advantage:**
- Cindy has C.A. in producing bowling balls since: \( OC^{BB}_C = \frac{1}{4} < 2 = OC^{BB}_D \)
- Dave has C.A. in producing steaks since: \( OC^S_D = \frac{1}{2} < 4 = OC^S_C \)
“Societal PPF”:
- always have “Dave produce the next steak” so long as he still has time to “switch from bowling balls to steaks.”
- only ever want Cindy to “produce the next steak” if she is the only available resource (i.e., if we have already used all of Dave’s labor to produce steaks).
- “Societal PPF”:
  - as a direct result of applying this principle, the Societal PPF becomes “steeper” (i.e., more negatively sloped) as we move down the PPF
- Division of labor along Societal PPF:
  - vertical intercept – both produce only bowling balls
  - red – Cindy produces only bowling balls and Dave produces both bowling balls and steaks
  - kink – Cindy produces only bowling balls and Dave produces only steaks
  - green – Dave produces only steaks and Cindy produces both bowling balls and steaks
  - horizontal intercept – both produce only steaks

(Slope of PPF) \(-OC_D^S = \frac{1}{2} = -0.5\)
(Slope of PPF) \(-OC_C^S = -4\)
Summary of important concepts related to PPF:

- PPF provides society with a “menu of available options,” from which society chooses “one particular combination of goods” (the choice obviously depends upon preferences/priorities of society)
- “Downward sloping nature” of PPF illustrates the “tradeoff that society faces between output of the two goods”
- The value of the slope of the PPF is equal to “minus the opportunity cost of the good on the horizontal axis for the marginal resource” => application of the “Law of Comparative Advantage” implies that the PPF becomes steeper as we “move down the curve” (i.e., PPF is “outward bending”)
- For a society with many different resources/workers, we would likely end up with a PPF that is a “smooth curve”

Attainable versus Unattainable:

- **Attainable** – combination of goods that can possibly be produced with the currently available resources and technology.  
  - points A, B, C, D – “on or below the curve”
- **Unattainable** – combination of goods that cannot possibly be produced with the currently available resources and technology.  
  - point E – “beyond the curve”

Efficient versus Inefficient (further characterization for attainable combinations):

- **Inefficient** – an attainable combination for which it is possible to increase the production of one good without decreasing the production of any other good.  
  - point D – “below the curve”
- **Efficient** – an attainable combination for which it is not possible to increase the production of any good without decreasing the production of some other good.  
  - points A, B, C – “on the curve”  
  - illustrates “the maximum amount of guns that can be produced for each possible level of roses production”

Multiple Choice questions:

- Questions 1-16 on pages 39-42 in textbook (answers on page 349)