= ECON 208

== Chapter 1

=== What is Economics

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

- Resources: land, labour, resource
  ** referred to as factors of production
  ** Outputs: goods, or services

==== Scarcity and Choice

- Scarcity indicates having to make a choice
- For every choice made there is an opportunity cost (whatre you giving up to produce these resources)
- *Opportunity Cost* the value of the next best alternative that is forgone when one alternative is chosen

//TODO: add graph pizza/beer opportunity cost graph

- Production Possibility Boundary (PPB)
  ** Illustrates
  *** Scarcity
  *** Choice
  *** Opportunity Cost

** Items on boundary are most efficient, using all resources possible

//TODO: add PPB graph

- Opportunity cost for activity includes three things:

1. The direct cost of activity, plus
2. Whatever you give up in order to do the activity, minus
3. Whatever savings the activity generates

==== Four Key Economic Problems

1. What is produces and how?

- *Resource allocation* determines the quantities of various goods that are produced

1. What is consumed and by whom?

2. Is productive capacity growing?

//TODO: the effect of economic growth on PPB

==== Economics and Government

- Can tax
- Alter allocation of resources
- Improve distribution of consumption
- Can affect the overall output and income

=== The Complexity of Modern Economics

==== Nature of the Economy

- *Many transactions* leads to a *complex* system that is *self-organized*

- Self organizing: individual consumers and producers seek to maximize their own satisfaction which leads to the overall state of the economy

- Incentives and self-interest:
  ** everyone is selfish
  ** individuals respond to incentive

- Efficiency: will we produce the goods and services people want using the least possible resources

=== The Decision Makers and Their Choices

- Consumers: maximizes satisfaction/utility with budget constraint
- Producers: maximized profits
- Government

//TODO: the circular flow of income and expenditure figure

=== Production and Trade

- displays two characteristics

** specialization of labour
** division of labour

- specialization: allocation of jobs to different people
  ** Advantageous because
  *** individual abilities differ - comparative advantage

- Division of labour: the breaking up of a production process into a series of specific tasks

== Economic Theories, Data, and Graphs

=== Positive and Normative Statements

- *Normative Statement* depend on value judgements and opinions - cannot be settled by resource facts
- *Positive Statements* do not involve value judgements, they are statements about what is, was, or will be

=== Building and Testing Economic Theories

- Theories
  ** Variables
  *** Endogenous
  *** Exogenous

** Assumptions
*** motives
*** Causation
*** Applicability
*** Unrealistic

** Predictions

=== Graphing Economic Theories

image::images/2018/09/income-and-consumption.png[income and consumption]

== Demand Supply and Price

=== Demand

- Quantity demanded: the total amount consumers desire to purchase in some time

period
- *ceteris paribus*: the price of a product and the quantity demanded are *negatively* related

image::images/2018/09/demandcurve.png[demand curve]

- A change in variables other than price will shift the demand curve
    - average household income
    - prices of other products
- Shifts in the Demand curve
    - rightward: increase in demand
    - leftward: decrease in demand
- A *change in demand* is a change in the quantity demanded at every price shift the entire curve
- A *change in quantity demanded* refers to a movement from one point on a demand curve to another point

image::images/2018/09/increase-of-demand.png[increase of demand]

=== Supply

- Quantity supply: the amount of product that a firm desires to sell in some time period
- *ceteris paribus*: the price of a product and the quantity demanded are *positively* related
- Shifts in supply curve:
    - increase price of inputs
    - technology government taxes and subsidies
- Quantity supplied it the amount that firms are willing to offer for sale and not necessarily the quantity sold
- A *change in supply* is a shift of the entire curve
- A *change in quantity supplied*: refers to a movement from one point on a supply curve to another point

image::images/ECON208Lecture-66915.png[align=center]

=== The Determination of Price

- *Market* a market may be defined as any situation in which buyers and sellers negotiate the transaction of some goods and services
- *Perfectly competitive market* buyers and sellers are price takers

==== Changes in Market Prices

- Four "laws" of supply and demand

1. An increase in demand causes an increase in both equilibrium price and equilibrium quantity
2. A decrease in demand demand causes a decrease in both equilibrium price and equilibrium quantity

.Shifts in the demand curve
image::images/ECON208Lecture-66915.png[align=center]

3. An increase in supply causes a decrease in the equilibrium price and in increase in the equilibrium quantity
4. A decrease in supply causes an increase in the equilibrium price and a decrease in the equilibrium quantity

.Shifts in the supply curve
image::images/ECON208Lecture-2bded.png[align=center]

=== Relative Prices and Inflation

- The *absolute price* of a product is the amount of money that must be spent to acquire one unit of that price
- A *relative price* is the price of one good in terms of another
- Demand and supply curves are drawn in terms of relative prices rather than absolute prices

== Elasticity

=== Price Elasticity of Demand

- Demand is *elastic* when quantity demanded is very responsive to change in the products own price (*inelastic* is opposite)
- Related to the slope of the demand curve but not the same

.Elastic demand
image::images/ECON208Lecture-7a8e3.png[align=center]

.inelastic demand
image::images/ECON208Lecture-92ebe.png[align=center]

- *Note* we can only do visual comparison if: both the curves are drawn on the same scale
- We start from the same price-quantity equilibrium

=== The Measurement of Price Elasticity

- Elasticity is defined as
  image::images/ECON208Lecture-e3de9.png[align=center]

- Demand elasticity is *negative*, but economists usually use the *absolute value*

- Elasticity measures the change in p and Q relative to some base values of p and Q

.Example: from point 0 to 1
image::images/ECON208Lecture-18dc3.png[align=center]

.Elasticity along a linear demand curve
image::images/ECON208Lecture-f468b.png[align=center]

.Demand Curves with constant elasticity
image::images/ECON208Lecture-0d509.png[align=center]

- D~1~ is perfectly inelastic
- D~2~ is perfectly elastic at p~0~
- D~3~ is unit elastic: a given % increase in p induces an equal % decrease in q at all points on the curve