## AEB 3103 Principles of Food and Resource Economics

### Study Guide

#### Module 2:

* Economics: the allocation of scarce resources
* Law of demand: price of a good increase, quantity demanded of that good decrease
* Factors that shift the demand curve:
  + Change in price of related goods (substitutes v. complements)
  + Change in income (normal v. inferior goods)
  + Change in consumer tastes and/or preferences
  + Change in expectations
  + Change in the number of consumers
* Law of supply: price of a good increase, quantity supplied of that good increase
* Factors that shift the supply curve:
  + Change in input prices
  + Change in prices of related goods (substitutes vs. complements)
  + Change in technology
  + Change in expectations
  + Change in the number of suppliers
* Aggregate supply and demand curves: horizontal sum of individual curves
* Market equilibrium, shortage, and surplus

#### Module 3:

* Consumer surplus: difference between WTP and price
* Producer surplus: difference between price and the supply curve
* Total surplus = consumer surplus + producer surplus
* First theorem (the invisible hand): In a complete and competitive market, self-interested market players collectively achieve efficient allocation of resources.
  + (Pareto) Efficiency
* Caveats to the invisible hand theorem:
  + Market failure
  + Fairness and equity
* Sources of market failure:
  + Monopoly
  + Externality and flawed property rights
  + Information asymmetry
* A competitive market has:
  + Lots of buyers and sellers
  + Good and/or service are identical
  + Free entry & exit
  + Perfect information about prices & goods
* A complete market has:
  + No externality
  + Well-defined property rights

#### Module 4:

* Price elasticity of demand: measure of responsiveness to price changes
  + %Q/%P
  + elastic demand: |elasticity| > 1
  + inelastic demand: |elasticity| < 1
  + unit-elastic demand: |elasticity| = 1
* The mid-point method to calculate demand
* Factors affecting demand elasticity:
  + luxury vs necessity
  + substitutes
  + share of income spent on a good
  + time elapsed since the price change
* Demand elasticity and total revenue
* Other elasticities:
  + Cross-price elasticity of demand (substitutes vs complements)
  + Income elasticity of demand (normal goods vs inferior goods)
  + Price elasticity of supply (elastic vs inelastic supply)
* Cost passing-through, demand elasticity & supply elasticity

#### Module 5

* Price control: price floors and price ceilings
* Quantity control: quotas
* Price ceiling: maximum price set by the government
  + Causes shortage
  + Quality of product too low
  + Significant search cost
  + Leads to black market and corruption
* Calculate deadweight losses under price ceiling
* Price floor: minimum price set by the government
  + Causes surplus
  + Quality of product too high
* Calculate deadweight losses under price floor
* Quota: maximum amount of quantity set by the government
  + Creates scarcity, pushes up asset prices
* Calculate deadweight losses under quota