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: $|\text{elasticity}| > 1$
  - inelastic demand: $|\text{elasticity}| < 1$

- unit-elastic demand: $|\text{elasticity}| = 1$
- 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