

# Principles of Micro

## Informal Outlines of Topics

### Part 1: CONSUMER THEORY

How do consumers decide what goods and services to buy?

- \*Budget Constraints
- \*Indifference Curves
- \*Optimization (the best choice)
- \*Deriving a Demand Curve

### Part 2: PRODUCER THEORY

How do firms decide how much output to produce?

- \*Production
- \*Costs

### Part 3: PERFECT & IMPERFECT COMPETITION

How do firms decide what prices to charge for their products?

Depends on the level of competition in their industry

- \*Perfect Competition
- \*Monopolistic Competition
- \*Oligopoly
- \*Monopoly

### Part 4: SUPPLY & DEMAND and APPLICATIONS

Bring consumers and producers together in markets

Look at what works and what doesn't

## Part 1: CONSUMER THEORY

How do consumers decide what goods and services to buy?

By looking at the intersection of what the consumer can *afford* and what the consumer *likes*.

\*Affordability: Budget Constraints

Income, Price of Good X, Price of Good Y

\*Likes/Preferences: Indifference Curves

Total Utility (TU)

Indifference Curves

Marginal Rate of Substitution (MRS)

4 Properties of Indifference Curves

Marginal Utility (MU)

Diminishing Marginal Utility

\*Optimization (the best choice)

Graph of Indifference Curve/Budget Constraint

Bang-per-Buck

Normal vs. Inferior Goods

\*Deriving a Demand Curve

## Part 2: PRODUCER THEORY

How do firms decide how much output to produce?

They produce the output level that maximizes profits.

\*Costs of Production

Profit, Total Revenue (TR), Total Cost (TC)

Cost Definitions

\*Production

Production Function (Q or TP)

Marginal Product (MP)

Diminishing Marginal Product

\*Relationship Between Production and Cost

More Cost Definitions

Shapes of Cost Curves

Costs in the Short-Run (SR) and Long-Run (LR)

## Part 3: PERFECT & IMPERFECT COMPETITION

How do firms decide what prices to charge for their products?  
Depends on the level of competition in their industry.

### \*Perfect Competition

Horizontal Demand Curve for the Individual Firm

Average Revenue (AR), Marginal Revenue (MR)

Profit Maximization

Table, Graph

Positive Profits, Negative Profits, Zero Profits

Shut-Down Price

Sunk Costs

Firm's Entry/Exit Decisions in the Long Run

Supply Curve in the Short Run

Supply Curve in the Long Run

### \*Monopoly

Sources of Monopoly Power

Average Revenue (AR), Marginal Revenue (MR)

Profit Maximization

Table, Graph, Algebra

Welfare Costs – Deadweight Loss (DWL)

Public Policies Toward Monopolies

Natural Monopolies

Price Discrimination

### \*Monopolistic Competition

Profit Maximization

Graph: Positive Profits, Negative Profits, Zero Profits

### \*Oligopoly

Duopoly, Collusion, Cartel

Duopoly Pricing (Jack and Jill problem)

Nash Equilibrium

Game Theory

Prisoner's Dilemma, Dominant Strategy

Public Policies Toward Oligopolies

## Part 4: SUPPLY & DEMAND and APPLICATIONS

Bring consumers and producers together in markets.  
Look at what works and what doesn't.

### \*Review of Supply & Demand

Definitions, Market/Aggregate Demand, Market/Aggregate Supply, Shift Demand Curve, Shift Supply Curve, Equilibrium, Surplus, Shortage

### \*Elasticity

Price Elasticity of Demand

Factors that Affect Elasticity

Calculating Elasticity Coefficients

Elastic, Inelastic, Unit Elastic

Relationship of Elasticity and Total Revenue

Income Elasticity of Demand

Normal vs. Inferior Goods

Cross-Price Elasticity of Demand

Substitutes vs. Complements

Price Elasticity of Supply

Calculating Elasticity Coefficients

### \*Government Policies

Price Controls

Price Ceilings, Price Floors

Taxes

Tax Incidence

Elasticity and Tax Incidence

### \*Efficiency of Markets

Willingness to Pay (WTP), Consumer Surplus (CS), Cost, Producer Surplus (PS), Total Surplus, Efficiency, Equity

### \*The Costs of Taxation

Tax Revenue

Deadweight Loss of Taxation