

MICROECONOMICS SYLLABUS

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Rotterdam, 1st term

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SUMMARY SYLLABUS

1. Preliminaries; Gains from trade
2. Demand and supply
3. Elasticity
4. Introduction to game theory (Prof. Dr Louis Visscher)
5. Behind demand: consumer choice
6. Behind supply: producer costs
7. Decision-making under uncertainty (Prof. Dr Louis Visscher)
8. Perfect competition
9. Welfare analysis and government intervention
10. Monopoly & market power
11. Price discrimination
12. Monopolistic competition & oligopoly
13. Selected topics in Microeconomics

MAIN LITERATURE

Textbook: Greg Mankiw & Mark Taylor, *Microeconomics*, 4th edn, Cengage Learning (2017).

Excerpts from: Bob Pindyck & Dan Rubinfeld, *Microeconomics*, 7th edn, Pearson International (2009).

TUTORIALS

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Tutorials are mandatory for everyone. Please see separate document.

EXTENDED SYLLABUS

1. Preliminaries: what is (micro)economics all about

a. Introduction

- Scarcity of resources
- Ten principles

Lit: Mankiw/Taylor, CH 1

b. Methodology of economics

- Economic models and role of assumptions
- Micro & Macro-economics
- Positive & normative analysis

*Lit: Mankiw/Taylor, CH 2
Appendix is good math repetition!*

c. Gains from trade

- Production possibility frontier
- Marginal rate of transformation and opportunity cost
- Specialization & gains from trade
- Absolute advantage
- Comparative advantage

Lit: Mankiw/Taylor, CH 19 (only until p. 391)

Obs: The topics of this class will be discussed during Tutorial 1.

2. Demand and supply

a. Demand

- Demand schedule and demand curve
- Movements along the curve vs. shifts in the curve
- Factors affecting demand
- Substitutes and complements

b. Supply

- Supply schedule and supply curve
- Movements along the curve vs. shifts in the curve
- Factors affecting supply

c. Market equilibrium

- Clearing price
- Shortage and surplus
- Shocking the equilibrium: comparative statics

Lit: Mankiw/Taylor, CH 3

Obs: The topics of this class will be discussed during Tutorial 1.

3. Elasticity

- a. Elasticity of demand
 - Price elasticity: meaning and determinants
 - Factors affecting price elasticity of demand
 - Calculating and visualizing price elasticity
 - Elasticity and total expenditure
 - Other demand elasticities (income and cross-elasticity)
- b. Elasticity of supply
 - Elasticity of supply: meaning, calculating, visualizing
 - Short-run and long-run
 - Elasticity and total revenue
- c. Applications of elasticity

Lit: Mankiw/Taylor, CH 4

Obs: The topics of this class will be discussed during **Tutorial 2**.

4. Introduction to game theory

- a. What is game theory?
 - Unilateral and bilateral situations
 - Strategic behaviour
 - Cooperative and noncooperative games
 - Simultaneous and sequential games
 - Normal form and extensive form
- b. Elements of a game
 - Players
 - Actions/moves
 - Strategy
 - Payoffs
 - Equilibrium
- c. Equilibrium concepts
 - Dominant strategies
 - Iterated dominance
 - Nash equilibrium
 - Maximin
- d. Repeated games

Lit: Pindyck/Rubinfeld, pp. 479-509 and 517-520

5. Behind demand: consumer choice

- a. Representing consumer choice
 - Consumer's possibilities: the budget constraint
 - Consumer's wants: indifference curves
 - Marginal rate of substitution and other properties of indifference curves
- b. Choice under constraint
 - Optimal consumer choice
 - Change in income
 - Change in prices
 - Income effect and substitution effect
 - Deriving a demand curve
- c. Applications

Lit: Mankiw/Taylor, CH 5

Obs: The topics of this class will be discussed during **Tutorial 2**.

6. Behind supply: producer costs

- a. Understanding costs
 - Accounting costs vs. opportunity costs
 - Economic profit
- b. Measuring costs
 - Product and cost functions
 - Total, average, and marginal cost
 - Relation between marginal and average costs
 - Shape of cost curves
- c. Short run and long run
 - Average long run costs
 - Economies of scale

Lit: Mankiw/Taylor, CH 6 (pp. 112-126)

Obs: The topics of this class will be discussed during **Tutorial 3**.

7. Decision-making under uncertainty

- a. Describing Risk
 - Probability
 - Expected Value, Variance
- b. Preferences toward Risk
 - Expected Utility
 - Risk Aversion

- c. Reducing Risk
 - Diversification & Insurance
 - Information

Lit: Excerpts from Pindyck/Rubinfeld, CH 5 (pp. 159-176)

Obs: The topics of this class will be discussed during **Tutorial 7**.

8. Perfect competition

- Assumptions of perfect competition
- Price taking and the demand curve of a competitive firm
- Profit maximization
- Supply curve in the short run
- Decision to enter/exit the market
- Supply curve in the long run

Lit: Mankiw/Taylor, CH 6 (pp. 127-144)

Obs: The topics of this class will be discussed during **Tutorial 4**.

9. Welfare analysis and government intervention

- a. Welfare analysis and market efficiency
 - Willingness to pay and consumer surplus
 - Calculating consumer surplus from demand schedule/curve
 - Willingness to sell and producers surplus
 - Calculating producer surplus from supply schedule/curve
 - Price changes: impact on surpluses
 - How market equilibrium maximizes total surplus
 - A cautionary note on market failure
- b. Government intervention in markets
 - Price ceilings
 - Price floors
 - Incidence of taxes
 - Welfare effect of taxes
 - Laffer curve

Lit: Mankiw/Taylor, CH 7, CH 8 and CH 9 (only pp. 179-186)

Obs: The topics of this class will be discussed during **Tutorial 4**.

10. Monopoly and market power

- The makings of a monopoly

- Demand curve of a monopolist
- Profit maximization by a monopolist
- Welfare effects of monopoly
- Monopoly pricing and monopoly power

Lit: Mankiw/Taylor, CH 14
Excerpts from Pindyck/Rubinfeld:
○ *CH 10 (pp. 354-356; 361-366)*
**Extra literature will be suggested in class.*

Obs: The topics of this class will be discussed during Tutorial 5.

11. Price discrimination

- Price discrimination
- Policies towards monopoly

Lit: Excerpts from Pindyck/Rubinfeld:
○ *CH 10 (pp. 354-356; 361-366)*
○ *CH 11 (only section 11.1 and 11.2)*
**Extra literature will be suggested in class.*

Obs: The topics of this class will be discussed during Tutorial 6.

12. Monopolistic competition and oligopoly

- Monopolistic Competition
- The makings of oligopoly
- The Cournot model
- Residual demand and reaction curves
- Competition versus Collusion: The Prisoners' Dilemma
- Implications of the Prisoners' Dilemma for Oligopolistic Pricing
- Cartels

Lit: Excerpts from Pindyck/Rubinfeld, CH 12 (pp. 443-455; 461-475)

Obs: The topics of this class will be discussed during Tutorials 6 and 7.

13. Selected topics in Microeconomics

- a. Revision of Microeconomic models
- b. Case studies
- c. Q&A