

Pre-course in **Microeconomics, 10 hours**

Sustainable Chemistry and Technologies for Circular Economy
University of Padova
Winter 2023/2024

Syllabus

Instructor: Nadiia Matsiuk
Language: English

Email: nadiia.matsiuk@hec.ca
Venue: Online (zoom)

Book: Pindyck, R. S., Rubinfeld, D. L.. Microeconomics 8th ed.. Pearson, 2013.

Programme

Seminar 1. Supply and demand. (3 hours)

- I. Introduction. Economics vs Microeconomics vs Macroeconomics. Tradeoffs of economic agents. Markets: competitive and noncompetitive. Prices. Real and nominal prices.
- II. The basics of supply and demand. The supply curve and variables that affect it. The demand
- III. Exercises: Consumer price index (CPI), Finding the market-clearing price and quantity.

Seminar 2. Consumers. (3 hours)

- I. Consumer preferences. Assumptions. Indifference curves. The marginal rate of substitution. Utility and utility functions.
- II. Budget constraints. The budget line. Budget line shifts as income and prices change.
- III. Consumer choices. Marginal utility. Normal and inferior goods. Elasticity of demand. Consumer surplus. Consumers and uncertainty.
- IV. Exercises: Utility maximization under a budget constraint.

Seminar 3. Consumers under uncertainty. (1 hour)

Risk. Preferences toward risk. Reducing risk. Bubbles. Behavioural economics.

Seminar 4. Firms. (3 hours)

- I. Production technology. Nature of a firm. Production functions. Returns to scale. Isoquants.
- II. Cost constraints. Cost. Types of costs. Long run and short run.
- III. Input choices. Perfectly competitive markets. Marginal revenue, marginal cost and profit maximization. Introduction to monopoly and oligopoly.
- IV. Exercises: Cost minimization; profit maximization.