

Healthcare Strategy and Decision Making

SYLLABUS

Level	Bachelor / Master
Credits	3 ECTS
Format	Virtual
Language	English
Maximum enrolment	50 students

Course Description

This course provides students with theoretical and practical tools for analysing strategic decision-making in healthcare. It combines perspectives from econometrics, game theory, social choice, multicriteria decision analysis, behavioural decision-making, and healthcare management. Students will examine how individuals, healthcare professionals, managers, institutions, and policymakers make decisions when facing uncertainty, strategic interaction, competing objectives, and limited resources. Particular attention will be given to the differences between individual and collective decision-making and to the mechanisms used to aggregate preferences and allocate healthcare resources. The course combines theoretical analysis with healthcare applications, simulations, case studies, and collaborative exercises.

Course Contents

Topic 1. Introduction to Strategy and Decision Making

- 1.1. Foundations of Decision Making
- 1.2. Rational Decision-Making Models
- 1.3. Bounded Rationality and Behavioural Decision Making
- 1.4. Decision Making under Risk and Uncertainty
- 1.5. Strategic Decision Making in Healthcare

Topic 2. Game Theory and Strategic Decision Making in Healthcare

- 2.1. Introduction to Strategic Interaction
- 2.2. Dominant Strategies and Nash Equilibrium
- 2.3. Sequential Games and Strategic Behaviour
- 2.4. Cooperation, Information, and Repeated Interaction
- 2.5. Game Theory Applications in Healthcare

Topic 3. Voting Power and Collective Decision Making

- 3.1. Collective Decision Making
- 3.2. Weighted Voting Games
- 3.3. Voting Rights versus Voting Power
- 3.4. Measuring Voting Power
- 3.5. Voting Power in Healthcare Institutions

Topic 4. Voting Methods in Healthcare Decision Making

- 4.1. Majority and Plurality Voting
- 4.2. Preference-Based Voting Methods

- 4.3. Alternative Collective Decision Rules
- 4.4. Voting Paradoxes and Strategic Voting
- 4.5. Voting Methods in Healthcare

Topic 5. Multicriteria Decision Making in Healthcare Management

- 5.1. Introduction to Multicriteria Decision Making
- 5.2. Criteria and Preferences
- 5.3. Analytic Hierarchy Process (AHP)
- 5.4. TOPSIS and PROMETHEE
- 5.5. MCDM Applications in Healthcare

Topic 6. Econometrics of Healthcare and Decision Making

- 6.1. Introduction to Econometrics in Healthcare
- 6.2. The Linear Regression Model
- 6.3. Econometric Models for Healthcare Decisions
- 6.4. Causal Inference and Policy Evaluation
- 6.5. Econometric Evidence and Decision Making

