Decision Theory
Entscheidungstheorie

Module Number | 82-021-BE01-H-0218
Degree | Bachelor
Semester | Summer term
Course Type | Lecture and Tutorial
Participation Limit | none
Creditable for | Mandatory in Major Supply Chain & Information Management, Mandatory in Major Business & Economics, Compulsory Elective
Contact Hours | 4 hours/week
Number of Credits | 5 ECTS
Language | English
Chair | Economics, esp. Public Finance and Economics, esp. Macroeconomics
Lecturer | Prof. Dr. Dominika Langenmayr and Prof. Dr. Simon Wiederhold

Learning Outcomes

- Students understand how decisions are actually made and how they should be made to achieve better outcomes with respect to the decision maker’s goals.
- Students understand common (and their own) flaws in decision-making. This helps them to develop a responsible attitude towards their decisions.
- Students are familiar with the formal-mathematical methods to analyze decision-making.
- Students understand strategic interactions in decision-making.
- Students can apply the acquired knowledge to typical decision problems in the commercial sphere and in general socioeconomic interactions.

Module Content

- Decision Theory under Certainty
  - Rational Choice under Certainty
  - Decision-Making under Certainty
- Probability Assessment
  - Rational Probability Assessment under Risk and Uncertainty
  - Judgement under Risk and Uncertainty
- Decision Theory under Risk and Uncertainty
  - Rational Choice under Risk and Uncertainty
  - Decision-Making under Risk and Uncertainty
- Game Theory
  - Static Games
  - Dynamic Games
  - Repeated Games

Teaching Methods

- Lecture
- Tutorial

Grading

- Final Exam (100 %)

Assessment criteria in detail

- Written exam (90 minutes) at the end of the semester

Average Workload

28 h = Time of attendance lecture
28 h = Preparation and postprocessing lecture
28 h = Time of attendance tutorial
28 h = Preparation and postprocessing tutorial
38 h = Exam preparation
150 h = Total workload
Previous Knowledge/Prerequisites

- Recommendation: Mathematics, Statistics I, Microeconomics

Readings

- Daniel Kahneman: Thinking, Fast and Slow, 2011