

Wahlpflichtfach in den Bachelorstudiengängen (Bachelor of Arts)

Game Theory

Teaching load 4 hours per week

ECTS Credit points 5 = 150 Stunden

Lecture and discussion: 60 hours = 15 x 4 SWS

Self-study: 90 hours

- 30 h: revision of notes made during class
- 30 h: solving problems
- 30 h: preparing the final exam

Lecturer Prof. Dr. Hildegard Breig

Course objectives presentation of general principles of non-cooperative game theory
overview of different categories of games

Learning Outcomes identify games as strategic behavior
demonstrate the importance of informational limitations
define the main equilibrium concepts and apply them
explain the effect of repetition on a game's outcome
illustrate the essence of bargaining situations
use game-theoretic thinking to explain events / outcomes in the economy and society

Topics

- Definition of games
- Dominant Strategies: The Prisoner's Dilemma
- Nash Equilibrium
- Information
- Mixed Strategies
- Subgame Perfectness
- Repeated Games and Cooperation

	<ul style="list-style-type: none"> • Dynamic Games with Incomplete Information • Basics of Bargaining
Textbook	<ul style="list-style-type: none"> ➤ Rasmusen, E., Games and Information, 4th ed., Malden, MA et al.: Blackwell Publishers 2006 ➤ Dixit, A. and Skeath, S., Games of Strategy, 2nd ed., New York, London: W.W. Norton & Company 2004
Teaching methods	Lectures and problem solving
Grading	Final written exam (100%)
Teaching language	English