Game theory

-- Syllabus --

Lecture: 4 SWS (1SWS = 45 min in each of 14 weeks)

Tutorial: 2 SWS (from second week on)

Time: Monday 10:00-11:30, Friday 11:45-13:15

Instructors: Prof. Dr. Susanne Goldlücke

Course level: Bachelor

Course language: English

Examination: written final exam

ECTS: 9

Course description

In this course, we will model situations of potential conflict, in which the outcome does not just depend on an individual's decision, but on the actions of others as well. The goal of this course is to convey methodological knowledge for the analysis of strategic interactions.

We begin by defining games in normal form and introduce solution concepts like the elimination of dominated strategies and Nash equilibrium. These will be practiced in applications from various areas of economics. Concepts like mixed strategies and evolutionarily stable strategies will be introduced. Later topics include repeated games and bargaining. Finally, we will define and solve games with incomplete information and apply this model to study auctions and signaling games.

Prerequisites

There are no formal prerequisites for this course. Students should be familiar with the content of Microeconomics I.

Textbooks

Osborne, "An Introduction to Game Theory",

Gibbons, "A Primer in Game Theory".