

Course description:

In this course students learn the fundamental building blocks of microeconomic theory and game theory. Topics are the theories of consumption and production; decision under risk and uncertainty; partial equilibrium; general equilibrium (existence, uniqueness and stability) and the two welfare theorems; core and cooperative game theory; normal form games with complete and incomplete information; extensive form games.

The lectures are accompanied by exercise classes.

Mathematical prerequisites are convexity and optimization.

The grade is determined by a written final exam.

Reading list

Mas-Colell, A., M. D. Whinston and J. R. Green (1995), *Microeconomic Theory*, Oxford University Press. (M)

Fudenberg, D. and J. Tirole (1992), *Game Theory*, MIT Press. (F)

Structure of the course

1. Consumer Theory (M1,2,3)
2. Consumer Theory (M3,4)
3. Production Theory (M5)
- 4+5. Choice under Risk and Uncertainty (M6)
6. General Equilibrium: Definition and Welfare Properties (M16)
7. General Equilibrium: Existence, Uniqueness, Stability (M17)
8. Topics in General Equilibrium Theory: Partial Equilibrium (M10), Core and Cooperative Game Theory (M18)
9. Normal Form Games with Complete Information (F1,2)
10. Normal Form Games with Incomplete Information (F6)
11. Extensive Form Games (F3,4)
12. Equilibrium Refinements for Extensive Form Games (F3, F4, M9)

The numbers in parantheses denote the chapters of the textbooks on which the respective lecture is based.