

Microeconomics I PhD, Winter 2023/24, Prof. Sven Rady

This is the first half of the two-semester microeconomics sequence for first-year doctoral students. It will focus on two topics:

- General Equilibrium
- Game Theory

Participants are asked to read up on their own on auxiliary material that will not be covered in the lectures:

- Demand
- Production

The main textbook for the course is:

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

For the general-equilibrium part, you could also take a look at the following book:

- D.M. Kreps, *Microeconomic Foundations I: Choice and Competitive Markets*, Princeton University Press 2013

The treatment of games will go considerably beyond the material covered in [MWG]. It will be based mainly on Parts I-III of:

- M.J. Osborne and A. Rubinstein, *A Course in Game Theory*, MIT Press 1994, freely accessible at <https://books.osborne.economics.utoronto.ca/> [OR]

The following topics will be covered (with chapter numbers referring to the relevant text):

Own Reading

- Demand Theory [MWG 3 B-G, I]
- Production [MWG 5 B-G]

General Equilibrium Theory

- Examples [MWG 15 B-C]
- Basic Properties and Normative Theory [MWG 16 B-D]
- Positive Theory [MWG 17 B-C]
- Asset Markets [MWG 19 B-E]

Game Theory

- Static Games with Perfect Information [MWG 8 B-D] [OR 2.1-2.4, 3.1-3.2, 4]
- Bayesian Games [MWG 8 E] [OR 2.6]
- Extensive Games with Perfect Information [MWG 9 B] [O-R 6]
- Repeated Games [O-R 8]
- Extensive Games with Imperfect Information [MWG 9 C-D] [O-R 11-12]