PhD Course: Microeconomics

Markus Walzl*

Winter 2021-22

Objectives

The course provides an in-depth discussion of key-concepts of microeconomic theory ranging from individual decision making and (general) equilibrium theory to theories of strategic interaction. Central theoretical concepts and proof techniques of modern microeconomic theory will be discussed and applied. Students will acquire a working-knowledge of these concepts and techniques such that main branches of the contemporary literature on microeconomics will become accessible.

Teaching mode

Classes (i.e., lectures and Q&A sessions) will be given by

- Markus Walzl, Professor of Economics, markus.walzl@uibk.ac.at, Office hours: Feel free to contact him right after class or make an appointment via email.

Students are advised to read the literature indicated in the syllabus *in italics* as a preparation for a lecture. This year, lectures will be offered as podcasts followed by Q&A sessions. In particular, it will prove useful to become aware of instances where it is difficult to follow the presentation in the reader and in the podcast – this is not an uncommon experience when exposed to the theoretical literature and presentations thereof. To make a joint effort to overcome these difficulties is the main objective of the explanations during the lecture and the Q&A sessions. Special emphasis is given to a step-by-step discussion of proofs and a thorough assessment of conceptual aspects. In the Q&A sessions particular emphasis will be given to typical questions preparing for the final (oral) exam. Problem Sets will be solved in small groups, submitted, and discussed during tutorial meeting within groups. The detailed organization of tutorials will be discussed during the first meeting (see schedule).

Tutorials will be given by

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- Karolina Vocke, karolina.vocke@uibk.ac.at, Office hours: Feel free to contact her right after class or make an appointment via email.

Grading will be based on a take-home (questions published on 14-1-2021, due 21-1-2021 at noon), and an oral exam (after the course at the beginning of February, individual appointments will be scheduled via doodle).

Literature

Main references

- Rubinstein, A. (2016), Lecture Notes in Microeconomic Theory, Princeton University Press, available online.

- Mas-Colell, A., Whinston, M. und J. Green (MCWG), Microeconomic Theory, Oxford: Oxford University Press, 1995.

More references will be provided on the lecture slides and will be available on the OLaT page of the course.

Schedule

Lectures will be offered as podcasts on OLaT. Depending on Covid-19 regulations Q&A sessions and tutorials will be either offered online (link provided via OLaT) or as a hybrid (on-campus session broadcasted via the virtual classroom). If on-campus sessions are permitted, meetings will be in SR4.

Topic 1: Preferences

– Eliciting preferences
– Rationality
– Mathematical prerequisites
– Literature: *Rubinstein Introduction and Lect. 1*; MCWG ch. 1 A-B
– Lecture podcast: Lecture 1 and Mathematical Prerequisites
– Q&A session: 10-1-2022, 14-16.
– Tutorial: 10-1-2022, 10-11 (planning) and 11-1-2022 in small groups on appointment.

Topic 2: Utility

– Utility representation
– Continuous preferences

- Literature: *Rubinstein Lect. 2*
- Q&A session: 11-1-2022, 16-18.
- Tutorial: 12-1-2022, in small groups on appointment.

Topic 3: Choice

- Rational choice and rationalizability
- Weak axiom of revealed preference
- Psychological motives
- Literature: *Rubinstein Lect. 3*; MCWG ch. 1 C-D
- Q&A session: 12-1-2022, 14-16.
- Tutorial: 13-1-2022, in small groups on appointment.

Topic 4: Consumption and demand

- Consumer preferences
- Consumer choice
- Demand and rationalizability
- Literature: *Rubinstein Lect. 4-5*; MCWG ch. 3 A-D and 4
- Q&A session: 13-1-2022, 14-16.
- Tutorial: 14-1-2022, in small groups on appointment.

Topic 5: Choices over Lotteries

- von Neumann-Morgenstern axiomatization
- Expected utility and its limits
- Literature: *Rubinstein Lect. 7-8*; MCWG ch. 6
- Q&A session: 14-1-2022, 14-16.
- Tutorial: 24-1-2022, in small groups on appointment.

Topic 6: Production and perfect competition

- Review of production theory
- Competitive equilibrium
- Partial equilibrium analysis
- Literature: *Rubinstein Lect. 6, p.84-89, MCWG ch. 10 A-C*
- Q&A session: 24-1-2022, 14-16.

– Tutorial: 25-1-2022, in small groups on appointment.

Topic 7: General equilibrium

– Exchange economies
– Closed economies with production
– Equilibrium and welfare
– Literature: *MCWG ch. 15 A-C*; MCWG 16
– Q&A session: 25-1-2022, 15-17.
– Tutorial: 26-1-2022, in small groups on appointment.

Topic 8: Equilibrium properties

– Compactness, convexity, and continuity
– Brouwer's fixed point theorem
– Fixed points and equilibrium existence
– Equilibrium uniqueness and stability
– Literature: *Jehle and Reny (2011), Ch.A.1*, Elements of MCWG ch. 17-18
– Q&A session: 26-1-2022, 14-16.
– Tutorial: 27-1-2022, in small groups on appointment.

Topic 9: Selected Topics on General Equilibrium 1

– The concept of the core and core equivalence
– Other-regarding preferences in general equilibrium
– Q&A session: 27-1-2022, 14-16.

Topic 10: Selected Topics on General Equilibrium 2

– Behavioral economics and general equilibrium
– Q&A session: 28-1-2022, 14-16.