

Master Course: Microeconomics

Markus Walzl*

Winter 2011-12

Objectives

The course provides an introduction into modern microeconomic theory. Students will be trained in applications of the standard microeconomic toolkit at an advanced level of mathematical and conceptual rigor. Central goal of the course is the mastery of key techniques of microeconomics such as the axiomatic analysis of individual choice with and without uncertainty, and the computation of equilibria in closed economies and games. Special emphasis is given to situations of strategic interaction with incomplete and asymmetrically distributed information with applications to incentive and insurance theory, financial and labor contracting, and industrial economics.

Staff

Lectures are 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.

The Proseminar is organized by

- Christopher Kah, christopher.kah@uibk.ac.at, Office hours: Feel free to contact him right after class or make an appointment via email.

*Markus Walzl, Department of Economics, Innsbruck University, and METEOR, Maastricht University. Email: markus.walzl@uibk.ac.at

Schedule

Week 1: Axiomatic choice

- Preferences and choice under certainty
- Preferences over lotteries and choice under uncertainty
- Expected utility
- Literature: vanZandt ch. 1, Jehle and Reny ch. 1.2

Week 2: Decision making under uncertainty

- Violations of expected utility
- Measures of risk
- Learning
- Literature: vanZandt ch. 2 and 3, Jehle and Reny ch. 2.4

Week 3: General equilibrium

- Exchange economies
- Production economies
- Equilibrium and welfare
- Literature: Jehle and Reny ch.5 and - if you like to have a look at the real stuff
- Mas Colell et al. ch. 15 and 16

Week 4: Information asymmetries and market failure

- Lemons market
- Adverse selection in insurance and finance
- Literature: Jehle and Reny ch. 8.1.1

Week 5: Economic institutions: Overcoming information asymmetries

- Screening
- Signalling
- Literature: Jehle and Reny ch. 8.1.2 and 8.1.3

Week 6: Economic institutions: Market and mechanism design

- Auctions and market design
- Elements of mechanism design (revelation principle, revenue equivalence, non-manipulability)

- Literature: Jehle and Reny ch. 9, McAfee ch. 7.6

Week 7: Moral Hazard and incentive theory

- Principal agent relationships
- Incentive contracts
- Moral hazard in financial markets
- Literature: Jehle and Reny ch. 8.2 and 8.3

Lecture and Proseminar

Lectures will discuss the corresponding reader and provide illustrative and relevant examples and applications. The proseminar will deal with exercises that deepen your understanding of the key concepts and techniques and prepare you for the exam.

Literature

Textbooks on microeconomic theory

- Jehle, Geoffrey A.; and Philip J. Reny (2000). *Advanced Microeconomic Theory*. Addison Wesley, 2nd Edition.
- Gravelle, H. and R. Rees, *Microeconomics*, London: Prentice Hall, 3.Auflage, 2004.
- Varian, H.R., *Intermediate Microeconomics*, New York: Norton, 5.Auflage, 1999.
- Kreps, D., *A Course in Microeconomic Theory*, New York: Harvester Wheatsheaf, 1990.
- Mas-Colell, A., Whinston, M. und J. Green, *Microeconomic Theory*, Oxford: Oxford University Press, 1995 (the impressive standard book, but a little bit beyond the level of the course).¹

Further reading

- McAfee, P., *Introduction to Economic Analysis*, CalTech 2006, lecture notes available on Ecampus.
- Milgrom, P. and J. Roberts, *Economics, Organisation and Management*, London: Prentice Hall, 1992 (a standard book on managerial economics, provides a treatment of the topics from a more practical perspective)
- Gibbons, R.: *A Primer in Game Theory*, 1. Aufl., New York, Harvester/Wheatsheaf, 1992 (Alternative title: *Game Theory for Applied Economists* – very good introduction into standard game theory)
- Binmore, K.: *Fun and Games*, 1. Aufl., Lexington, Mass: D.C. Heath and Company, 1992 (a non-standard introduction into game theory)
- vanZandt, T.: *Introduction to the Economics of Uncertainty and Information*, INSEAD 2002, lecture notes, available on Ecampus.

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

¹One of these five textbooks on advanced microeconomics will do for this course, references for the different topics are typically given for Jehle and Reny