

# Master Course: Microeconomics

Markus Walzl\*

Winter 2021-22

## Objectives

The course provides an introduction into modern microeconomics. How does economics (or economists) think about individual decision making and (economic) interaction in markets and other institutions? More specifically, we ask questions such as: What do we consider as a rational decision? When are individual decisions reflecting some degree of irrationality? Are people confused when they are exposed to risk and uncertainty? When do we regard a distribution of goods and services as fair (or efficient)? Do markets (always) help to enhance fairness and efficiency in economic interaction? What is the role of information in economic interaction? Do we benefit from knowing more (than others)? In how far can economists design institutions to achieve goals such as or fairness?

## Elements of the course

The course introduces and applies four different research methodologies:

1. *Running experiments:*

A typical starting point for the lectures and feedback-sessions are online experiments. To enroll go to the webside <https://arielrubinstein.org/gt/student/?c=41420>. Our course number is 41420, and the class password is 8599. Just enroll with your email address and change the class password into an individual one after the first login. On the webpage there will be little (anonymous) online experiments (changing on a weekly basis) investigating individual decision making. The experimental results will be discussed at the beginning of each lecture.

2. *Modeling behavior:*

Based on the observations of behavior in our online experiments, we will discuss different attempts to model individual and collective decision making. Typical tools are axiomatic models of individual choice, choice models developed in cognitive psychology, optimization techniques, and equilibrium models. Concepts will be

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introduced and discussed during lectures and further analyzed in take-home problem sets.

3. *Computational exercises:*

In order to check your understanding of the basic models and techniques, you can solve little take-home exercises that are discussed in the working group sessions.

4. *Policy conclusions:*

Economists often offer policy conclusions based on empirical (or experimental) regularities and models. We will discuss such conclusions in class and you will learn to write little "essays" that provide critical assessments and reflections.

## Teaching Methods and Exam

The course contains the following different building blocks:

1. *Lectures:* All relevant material from the textbook by Osborne and Rubinstein and other sources as well as the discussion of typical exam questions will be covered by a series of lectures. If regulations allow for, lectures will be on-campus in UR but are also broadcasted via virtual classroom (see OLaT page).
2. *Assignments:* The content of lectures and references will be the subject for weekly assignments that can be solved in groups. Feedback to assignments is provided during individual meetings with the lecturer of the working group (AG) and during lectures (see schedule). Further details of the organization of working group meetings will be discussed during the first online meeting on October 7th, 2020 at 10 and 11 in the virtual classroom.

The final exam is an oral exam, i.e., a conversation about the course content. Typical questions will be discussed during the lecture and working group meetings. Discussions during the lecture and in the working groups are an indispensable training for the oral exam.

## 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 working group (AG) is organized by

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

## Literature

Textbooks on microeconomic theory

- Osborne, Martin and Ariel Rubinstein (2020). Models in Microeconomic Theory. <https://www.openbookpublishers.com/product/1171>
- Jehle, Geoffrey A.; and Philip J. Reny (2011). Advanced Microeconomic Theory. Addison Wesley, 3rd 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).<sup>1</sup>

Further reading

- McAfee, P., Introduction to Economic Analysis, CalTech 2006, lecture notes available via OLaT.
- 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, New York, Harvester/Wheatsheaf, 1992 (Alternative title: Game Theory for Applied Economists – very good introduction into standard game theory)
- Binmore, K.: Fun and Games, 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 via OLaT.

More references will be provided on the lecture slides and will be available via OLaT.

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

## Schedule

### *Session 1: Rationality (5-10-2021)*

In particular after the most recent financial crisis, economists have been criticized for policy recommendations that rely on models of rational decision making. In how far are individuals (ir)rational and what are the pitfalls of models of rational decision making?

### *Session 2: Utility, well-being, and fairness (12-10-2021)*

Next to rationality, another frequently used model ingredient is the selfish profit-orientation of economic agents. How prominent is individual profit as a motivation to act and how flexible is the rational choice framework to accommodate more complex preferences?

### *Session 3: Risk and uncertainty (19-10-2021)*

What are the cognitive limits of individuals who face risk and uncertainty? In how far are their choices (boundedly) rational?

### *Session 4: Insurance (4-11-2021)*

How can individuals be classified according to their attitude towards risk and how can they gain from sharing risk?

### *Session 5: Uncertainty and cognitive biases (9-11-2021)*

How to integrate cognitive limits into a theory of choice under uncertainty?

### *Session 6: Consumption (16-11-2021)*

How can we model a market participant? What is a rational consumption decision?

### *Session 7: Exchange (23-11-2021)*

Which allocations are likely to result from market interaction? How “good” are such allocations?

### *Session 8: A market for donor-kidneys? (30-11-2021)*

How can exchange be institutionalized? What is a “good” allocation?

### *Session 9: Production (7-12-2021)*

What is the difference between a (rational) consumer and producer? What is the objective of a firm?

### *Session 10: General Equilibrium (14-12-2021)*

How can we integrate production decisions into a market framework? What shifts welfare between producers and consumers?

### *Session 11: Market Breakdown (11-1-2022)*

What prevents markets from resulting in “good” allocations? What are successful policy interventions?

*Session 12: Incentives (18-1-2022)*

A rather prominent reason for market malfunction is asymmetric information regarding actions of market participants. What are the benefits and limits of incentive contracts to mitigate these information asymmetries?

*Session 13: Auctions and Market Design (25-1-2022)*

Another information asymmetry markets originates from individual's private information regarding their willingness to pay or costs of production. In how far can markets be designed to achieve desirable outcomes in the presence of such information asymmetries?

*Final Exam (30-1 to 4-2-2022)*