

ADVANCED MICROECONOMICS

Chair of Empirical Microeconomics winter term 2025/2026

Lecture Wednesday 10-12am c.t. Dr. Juliane Hennecke room: Großer Hörsaal [WiWi] e-mail: juliane.hennecke@wiwi.uni-halle.de

Exercise Session Monday 12-2pm c.t. Nils Sulzmann Raum: Hörsaal Z [Mel] e-mail: nils.sulzmann@wiwi.uni-halle.de

Course Description

The course provides an introduction to modern microeconomic theory at the Master's level. It focuses on individual decision-making, general equilibrium, and game theory. The first part of the course covers consumer and producer theory, including preferences, utility maximization as well as profit and cost functions. These foundations are used to analyze market demand and supply and derive comparative statics results.

The second part of the course introduces general equilibrium theory. Students learn how individual optimization problems aggregate into market outcomes and under what conditions decentralized markets lead to efficient allocations. The course also discusses the limits of markets, including the welfare theorems, externalities, and market failures.

The third part is devoted to game theory. It introduces strategic interaction in static and dynamic settings, covering concepts such as Nash equilibrium, subgame perfection, and repeated games. Applications are drawn from industrial organization, public economics, and political economy.

Throughout the course, mathematical rigor and formal modeling are emphasized. Students will develop the ability to understand and construct proofs, critically assess theoretical models, and apply the tools of microeconomic theory to a range of economic problems. The course provides essential foundations for further theoretical and empirical work in economics.

Learning Goals

Students ...

- can explain basic and advanced microeconomic concepts and models
- can use microeconomic models to demonstrate behavior of consumers and firms as well as their market interactions
- can transfer their knowledge to different areas of economics
- can simplify complex economic situations using microeconomic models
- know empirical approaches to answering causal questions

Workload

150 hours - 60 in person and 90 reading and independent study / 5 credit points

Exam

written exam (60 min), dates: February 13, 2026 (8am) and March 20, 2025 (8am)

Content and Outline

Content

1) **Consumer Theory**

- 1.1) Preferences and Utility (L1)
- 1.2) Utility Maximization (L2)
- 1.3) Expenditure minimization (L3)
- 1.4) Demand functions and Comparative Statics (L4)
- 1.5) Duality, Slutsky equation and Types of Goods (L5)

2) Decisions under risk and uncertainty

- 2.1) Expected Utility (L6)
- 2.2) Risk Preferences (L7)
- 2.3) Insurances (L8)
- 2.4) Risk and Safety Regulations (L8)

3) General Equilibrium

- 3.1) Exchange Economy (L10)
- 3.2) Welfare Economics (L11)
- 4) Behavioral Economics (L12)

Outline

The outline is preliminary and may be changed over the course of the semester. Please check Stud.IP for changes and announcements regularly.

W		Lecture		Exercise Session
**	date	topic	date	topic
0	15/10	Introduction	13/10	no session
1	22/10	L1 - CT I - Preferences and Utility	20/10	Math for Economists (PS0)
2	29/10	L2 - CT II - Utility maximization	27/10	CT I - Preferences (PS 1)
3	05/11	L3 - CT III - Expenditure Minimization	03/11	CT II - Utility Function (PS 2)
0	00/11	Application: Carte Blance principle (Waldfogel 1993)	00/11	CT II Cunty Function (10.2)
4	12/11	CT IV - Demand functions and Com-	10/11	CT III - Utility Maximization & Expen-
		parative Statics		diture Minimization (PS 3)
5	19/11	CT V - Duality, Slusky Equation &	17/11	CT IV - Income and substitution effects
		Types of Goods		(PS 4)
		Application: Giffen Goods (Jensen & Miller 2008)		
6	26/11	General Equilibrium I - Exchange	24/11	CT V - Duality (PS 5)
		Economy		
7	03/12	General Equilibrium II - Welfare Economics	01/12	CT VI - Income and substitution effects (PS 6)
		Application: Role of Information (Jensen 2007)		,
8	10/12	R&U I - Expected utility	08/12	GE I - Exchange Economy (PS7)
9	17/12	R&U II - Risk Preferences	15/12	GE II - Edgeworth Box (PS8)
		Application: Measuring Risk Preferences (Dohmen et al. 2008)		
Christmas Break				
10	07/01	R&U III - Insurances	05/01	no session
		(Online via StudIP Meeting)		
11	14/01	R&U IV - Risk and Safety Regulations	12/01	R&U I - Expected Utility (PS 9)
		Application: Value of a Statistical Life		
		(Ashenfelter et al. 2004)		
12	21/01	Behavioral Economics.	19/01	R&U II - Insurances (PS10)
13	28/01	Summary	26/01	R&U III - Asymmetric Information &
		-		Moral Hazard (PS11)
14	04/02	no lecture	02/02	Mock Exam

Literature

- Lecture Notes by David Autor (MIT)
- For basic intuition (less formal): Varian, Hal R. (2020): Intermediate microeconomics: a modern approach. 9th edition. New York W.W. Norton & Company
- Additional material:
 - Empirical methods: Angrist, J. D., & Pischke, J. S. (2014). Mastering metrics: The path from cause to effect. Princeton university press.

Autor (2016) Lecture Notes

- 1) Consumer Theory
 - 1.1) Preferences and Utility (Autor LN 3)
 - 1.2) Utility Maximization (Autor LN 4)
 - 1.3) Expenditure minimization (Autor LN 5)
 - 1.4) Demand functions and Comparative Statics (Autor LN 6)
 - 1.5) Duality, Slutsky equation and Types of Goods (Autor LN 7)
- 2) General Equilibrium
 - 2.1) Exchange Economy (Autor LN 10)
 - 2.2) Welfare Economics and General Equilibrium (Autor LN 10/11)
- 3) Decisions under risk and uncertainty
 - 3.1) Expected Utility (Autor LN 16)
 - 3.2) Risk Preferences (Autor LN 16)
 - 3.3) Insurances (Autor LN 17)
 - 3.4) Safety Regulations and the Value of a Statistical Life (Autor LN 18)

Papers for Application Sessions

- 1.3) Carte Blance Principle (L3 Expenditure Minimization)
 - Waldfogel, J. (1993).: The Deadweight Loss of Christmas. AER, 83(5): 1328–1336.
- 1.5) Giffen Goods (L5 Duality, Slusky Equation and Types of Goods)
 - Jensen, R.T., & N.H. Miller (2008): Giffen Behavior and Subsistence Consumption. AER 98 (4): 1553–77.
- 2.2) The role of information for welfare (L11 Welfare economics)
 - Jensen, R. (2007): The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector, QJE, 122(3): 879–924
- 3.2) Measuring Risk Preferences (L7 Risk Preferences)

- **Dohmen et al. (2008)**: Individual risk attitudes: Measurement, determinants, and behavioral consequences. JoEEA, 9(3): 522–550.
- 3.4) The Value of a Statistical Life (L9 Safety Regulations)
 - Ashenfelter, O., & Greenstone, M. (2004): Using Mandated Speed Limits to Measure the Value of a Statistical Life. JpPE, 112(S1): 226–267