

Master-Module Panel and Evaluation Methods (5 ECTS)

for Master of Science in Economics: Panel and Evaluation Methods (Econometrics 4)
for Master Sozialökonomie: Panel and Evaluation Methods (Ökonometrie 4)
for Master Arbeitsmarkt und Personal: Quantitative Methoden 2
for Master Marketing: Statistik III – Panel and Evaluation Methods
for Master Management: Panel and Evaluation Methods (Vertiefungsbereich)
for Master FACT: Ökonometrie 4

The module takes place in a blocked format in the second half of the semester.

Lecture: Mo. & Wed. 8:00-9:30 in LG 0.142 Start: 8.12.2025

Exercise: Wed. 9:45-11:15 [Class: LG 0.143; PC lab: LG 0.422], Start: 10.12.2025

Office hours: Dr. Erwin Winkler: Mo. 10.00 - 11.00 and by appointment

The course presents advanced econometric methods building on the econometrics course in the first half of the semester. We start with instrumental variables estimation and the GMM approach to solve endogeneity problems. Next, we turn to static and dynamic panel data methods. We then cover modern empirical approaches of program evaluation and causal effects estimation which are applied in numerous fields. The course finishes with a short introduction to quantile regression estimation.

Content	1	Introduction
	2	Instrumental Variables and GMM
	3	Linear Models for Panel Data
	4	Evaluation Methods
	5	Quantile Regression

Exam and credits

The course is completed by passing an exam (60 minutes). It is possible to hand in a written empirical homework which can be prepared in groups of up to three students. The grade of the homework counts for up to 20 percent of the grade in the winter semester if the exam is passed. It does not count for the grade in later semesters. Registration for the voluntary homework is open until 14.12.2025 using StudOn. Topics are handed out starting 17.12.2025. The deadline for handing in the homework is 06.02.2026 at noon.

Literature and Readings

The lecture uses slides that are available on StudOn. The lecture is partly based on Verbeek, Marno (2017), A Guide to Modern Econometrics, 5. Ed., John Wiley Publishers (chapters 5, 7, and 10). In addition, we offer a course pack with reading material.

Recommended texts:

- Greene, William H., 2020, Econometric Analysis, 8. ed., Pearson
- Gujarati, Damodar N., 2003, Basic Econometrics, 4. ed., McGraw Hill, New York
- Hansen, Bruce E., 2022, Econometrics, Princeton University Press, Princeton and Oxford
- Wooldridge, Jeffrey M., 2010, Econometric Analysis of Cross Section and Panel Data, 2nd. ed. MIT Press, Cambridge/Mass., London
- Cameron, C.A. and P.K. Trivedi, 2005, Microeconometrics. Methods and Applications, Cambridge University Press
- Cameron, C.A. and P.K. Trivedi, 2022, Microeconometrics Using Stata, 2nd ed., Stata Press, College Station, Texas.
- Angrist, Joshua and Jörn-Steffen Pischke, 2009, Mostly Harmless Econometrics, Princeton University Press, Princeton, and Oxford.