

Course syllabus

Applied Econometrics for Policy Evaluation

Winter 2026/27

Last update: 08.07.2026

Course logistics

This course is an elective (Wahlpflichtfach) in the program BSc Wirtschaftswissenschaften (track Economics) at the Department of Economics at Goethe University in Frankfurt am Main. The course builds on the course Econometrics (Economics). Please contact the lecturer prior to enrollment if you have not yet taken that course.

Credits: 6 CP / 3 SWS.

Lecturer: Prof. Dr. Manuel Linsenmeier (linssenmeier@c3s.uni-frankfurt.de); office hours by appointment and on Zoom; please book [HERE](#) [link will come soon].

Class teacher: Samuel Manfredi (manfredi@c3s.uni-frankfurt.de); office hours Wednesday, 10:30 AM.

Time and Location: see [LSF](#).

Additional resources: see OLAT [link will come soon].

Course description

This course provides an overview over alternative econometric methods for discerning correlation from causal relationships. It focuses on how economists can use observational data to identify and estimate causal effects, with particular emphasis on research design, identifying assumptions, implementation, and critical assessment. The weekly lectures cover five methods of modern applied econometrics: matching, instrumental variables, regression discontinuity designs, difference-in-differences, and synthetic control. Biweekly exercise sessions provide hands-on practice of using R for data preparation and exploration, model estimation, model diagnostics, and critical interpretation.

Learning goals

- Students understand the intuition, assumptions, and limitations of the most common contemporary methods of applied econometrics.
- Students can identify appropriate research designs and econometric methods for a given research question and empirical setting.

- Students can implement contemporary econometric methods using statistical software and critically assess assumptions and interpret the results.

Course timeline

Week	Date	Topic of Lecture	Topic of Practice Session
1	12.10.	Course introduction	Econometrics review
2	19.10.	Experiments	
3	26.10.	Potential outcomes	Potential outcomes
4	02.11.	Causal graphs	
5	09.11.	Matching	Matching
6	16.11.	Instrumental variable	
	23.11.	Regression discontinuity	Instrumental variable
7	30.11.	Panel regression	
8	07.12.	Difference in differences	Difference in differences
9	14.12.	Difference in differences II	
		<i>Winter break</i>	<i>Winter break</i>
10	11.01.	Synthetic controls	
11	18.01.	Synthetic controls II	Synthetic controls
12	25.01.	Treatment effect heterogeneity	
13	01.02.	Inference	Heterogeneity & Inference
14	08.02.	Exam review	

Assessment

The course is assessed with a final written exam (90 minutes).

Readings

Scott Cunningham (2026) [SC2026]: Causal Inference: The Remix. Yale University Press. Online version of 1st edition (Mixtape) available at: <https://mixtape.scunning.com/>.

Nick Huntington-Klein (2022) [NHK2022]: The Effect: An Introduction to Research Design and Causality. CRC Press. Online version available at: <https://theeffectbook.net/>.