

Seminar in Applied Microeconometrics

Syllabus – Winter Semester 2023/24

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Aim and outline of the seminar

This course offers a short introduction to the fundamentals of causal inference and to widely used research designs in the social sciences. In the first part a framework for understanding causality is introduced. Specifically, the epistemological differences between association, intervention and counterfactuals are explained. Finally, it is shown why experiments are paramount in generating causal knowledge and which assumptions are needed for which level of the causal hierarchy.

The second part is devoted to the research designs such as regressions analysis, difference-in-differences, instrumental variables, and regression discontinuity. The emphasis is how these research designs are applied to answer important questions in microeconomics. Students choose one to two paper, present their results, and write a term paper about them. There will be a long list of papers from which students can choose. *Some* examples are:

- Education: How does school tracking, class size, school spending, or online college courses affect student success?
- Gender: How high is the career costs of children and what is the role of bargaining in the gender wage gap?
- Early childhood: how do economic circumstances at their early age affect people?
- Crime: What is the effect of punishment?

Students should discuss the assumptions the research designs their chosen papers use in order to identify a causal effect. Therefore the emphasis is to learn what one needs to estimate in order to answer a given question. Further, the research designs are discussed such that students will be able to evaluate and apply these research designs to other questions and fields. After the course, students should be able to read and interpret research and judge its credibility.

Literature

Cunningham, S. (2021). Causal Inference: The Mixtape. New Haven: Yale University Press.

The book is available for free at <https://mixtape.scunning.com/>

Prerequisites

Introductory econometrics courses will be helpful.

Examination

A term paper and a presentation

Organizational details

Introduction is **online** Friday 27.10.2023

Student presentations are **in person** Friday and Saturday 19.01. and 20.01.2024