

Advanced Topics in Econometrics 1

Description

This course discusses selected modeling techniques for the analysis of cross-section and panel data on microeconomic units such as persons, households, firms or regions. The course starts with an overview of key concepts in Statistics and Econometrics. It then discusses important principles of estimation and inference in Microeconometrics. Depending on the students' background and interests we may cover topics such as nonparametric econometrics and causal machine learning. While the course focuses on the theory and implementation of econometric estimators with Stata, we will also discuss leading economic applications and research papers.

If you consider taking this course, please email me as soon as possible so that we can arrange a kick-off meeting with all participants at the beginning of the semester to fix the contents of the course. The course will take place twice a week on Tuesdays (14:00-16:00, on campus) and Fridays (10:00-12:00, online) in December 2024 and January 2025.

Target Audience and Prerequisites

The course is intended for doctoral students who want to become familiar with modern econometric methods for the analysis of cross-section and panel data. Participants are expected to have a good knowledge of intermediate Statistics and Econometrics at the level of Stock and Watson (2012) or Wooldridge (2013).

Assessment

Grading will be based on homework assignments and presentations in class.

Course Materials and Background Readings

Lecture notes, problem sets, and additional materials will be posted on the ILIAS platform. The lecture notes summarize the key points covered in class. For a deeper understanding of the material, you should take additional notes during class and study the core background readings. The main background readings are the textbooks by Cameron and Trivedi (2005) and Wooldridge (2010). Additional references will be given in class.

Cameron, A. Colin and Pravin K. Trivedi (2005). *Microeconometrics: Methods and Applications*, Cambridge: Cambridge University Press.

Wooldridge, Jeffrey M. (2010): *Econometric Analysis of Cross Section and Panel Data*, Cambridge (MA): MIT Press, second edition.

Additional References

Stock James H. and Mark W. Watson (2012). *Introduction to Econometrics*. Boston (MA): Pearson, third international edition.

Wooldridge, Jeffrey M. (2013). *Introductory Econometrics: A Modern Approach*, Cincinnati (OH): Thomson South-Western, fifth edition.