

Applied Microeconometrics Using Stata

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Course Duration and Credits

This is a one-semester course for all students of MSc Economic Analysis and Measurement and MSc Economics. A maximum of 10 credits can be earned within the modules *Quantitative Methoden* or *Akzent*.

Course Registration

The registration procedure depends on the module this course is intended for. We will explain the Porta or LSF registration procedure in the first session.

- 1) A slot in the course is guaranteed for Master's Students participating in the **research project of Professor Jirjahn**.
- 2) A slot in the course is guaranteed for students in the **Master program "Economic Analysis and Measurement"** as well.
- 3) Since the number of computers is limited, we will admit **other students** up to full capacity on a first come first serve basis (= 25 students).

Course Description

This class is designed to give students the opportunity to apply methods learned in more theoretical statistics or econometrics courses.

By the end of this course, students will be able to produce descriptive statistics and to estimate cross-sectional and longitudinal regression models of the sort frequently employed in empirical research. The focus of the course is on learning how to start and carry out econometric analyses using the Stata statistical software package.

Prerequisites

One semester of econometrics is recommended. However, we will give a short introduction to all methods used during the course. No prior experience with Stata is assumed or required.

Textbooks

Required reading:

- Wooldridge, Jeffrey M. (2013): *Introductory Econometrics: A Modern Approach*, 5th edition. Mason, OH: South-Western CENGAGE Learning.

We recommend the following textbooks:

- Angrist, Joshua D. and Pischke, Jörn-Steffen (2008): *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.
- Baum, Christopher (2006): *Introduction to Modern Econometrics Using Stata*, Stata Press.
- Cameron, Colin A. and Pravin K. Trivedi (2010): *Microeconometrics Using Stata*, Revised Edition, Stata Press.
- Kohler, Ulrich and Frauke Kreuter (2012): *Data Analysis Using Stata*, 3rd edition, Stata Press.
- Stock, James H. and Mark W. Watson (2014): *Introduction to Econometrics*, Pearson.

- Wooldridge, Jeffrey M. (2002): *Econometric Analysis of Cross Section and Panel Data*, MIT Press.

Grading

Final grading will be based on exam results. Please note the following:

For all students regular attendance (no more than two sessions missed) and active participation (includes solving take-home assignments after every session) are required to be admitted to the exam. Furthermore, a replication task has to be solved in groups. Results of the exam will only be valid after successful completion of stated task (*Prüfungsvorleistung*).

Stata

Successful completion of this course will require the use of Stata software (we recommend using one of the more recent versions: Stata 11.0, 12.0, 13.0). Stata is available on all lab computers on campus.

Topics and expected dates

- 15.4. Introduction and Data Management (Wooldridge Ch 1-4)
- 29.4. Linear model and OLS estimation (Wooldridge Ch 5-9)
- 6.5. Panel data and duration models (Wooldridge Ch 13-14)
- 10.6. Panel data and duration models (Wooldridge Ch 13-14)
- 17.6. Limited and qualitative dependent variables (Wooldridge Ch 7.5, 17)
- 8.7. Instrumental variables (Wooldridge Ch 15)

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