

# **Applied Microeconometrics using Stata**

**Mehrza B. Baktash, Thi Xuan Thu Le**

Summer Semester 2022

## **Course Duration and Credits**

This is a one-semester course for all students of M.Sc. Economics. A maximum of 10 credits can be earned within the modules *Methods*, *Economic Analysis* or *Elective*.

## **Course Description**

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

By the end of this course, the students will be able to produce descriptive statistics and to estimate cross-section 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 required or assumed.

## **Textbooks**

### **Required reading**

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

### **Recommended 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.

## Course Structure

The course consists of two parts. There will be a theory session in the morning (8 am – 10 am) and an empirical session (Stata tutorials) in the late-morning (10 am – 12 pm). Thi Xuan Thu Le is responsible for the theory sessions and Mehrzad B. Baktash is responsible for the practical sessions.

## Grading

Final grading will be based on the exam results. The exam would be divided into 2 parts: (1) theoretical part and (2) empirical part. Please note the following points:

- To participate in the exam, students must score **at least 50% in the take-home assignments**.
- Students can also gain bonus points for the exam by solving the take-home assignments.
- For all students regular course attendance is required.

## Stata

Successful completion of this course will require the use of Stata software (we recommend using one of the more recent versions: Stata 15.0, 16.0, 17.0). Stata is available on all lab computers on the campus.

## Contact and Office Hours

Office hours are arranged after an appointment by email. You can reach us under the following email:

Mehrzad B. Baktash: [baktash@uni-trier.de](mailto:baktash@uni-trier.de)

Thi Xuan Thu Le: [lethixuan@uni-trier.de](mailto:lethixuan@uni-trier.de)

## Take-Home Assignments

The take-home assignments must be sent by email until 11:59 pm of the deadline day. Please include both the do- and log-files in a zip-folder and send it to both of us.

**Topics, Rooms and Expected Dates of the Theory Sessions (8 am – 10 am c.t.)**

1.	06.04.22	B121	Introduction and Linear Models
2.	13.04.22	B121	Instrumental Variables
3.	20.04.22	B121	Instrumental Variables
4.	27.04.22	B121	---
5.	04.05.22	B121	Panel Data Models
6.	11.05.22	B121	---
7.	18.05.22	B121	Panel Data Models
8.	25.05.22	B121	Non-Linear Models
9.	01.06.22	B121	Non-Linear Models & Censored and Truncated Data
10.	08.06.22	B121	---
11.	15.06.22	B121	Censored and Truncated Data
12.	22.06.22	B121	Regression Discontinuity Design
13.	29.06.22	B121	Regression Discontinuity Design
14.	06.07.22	B121	---
15.	13.07.22	B121	Q&A

**Topics, Rooms and Expected Dates of the Empirical Sessions (10 am – 12 pm c.t.)**

1.	13.04.22	B121	Introduction and Data Management
2.	20.04.22	B121	Data Management
3.	27.04.22	B121	Data Management
4.	04.05.22	B121	Linear Models
5.	11.05.22	B121	---
6.	18.05.22	B121	Instrumental Variables
7.	25.05.22	B121	Panel Data Models
8.	01.06.22	B121	Panel Data Models
9.	08.06.22	B121	---
10.	15.06.22	B121	Censored and Truncated Data
11.	22.06.22	B121	Regression Discontinuity Design
12.	29.06.22	B121	Regression Discontinuity Design
13.	06.07.22	B121	---
14.	13.07.22	B121	Q&A

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