

**Winter term 2023/2024****Master Economics und Master Public Economics****APPLIED MICROECONOMETRICS**

(10173401/10173402)

**Lecturer/Teaching Assistant:** Prof. Danzer / Denise Barth**Lectures:** Thursdays, 08:30-10:00 a.m., first meeting: October 19, 2023**Venue:** Garystr. 21, HS 104.**Tutorials:** Wednesdays, 14:15 – 15:45 a.m., first meeting: October 18, 2023**Venue:** Garystr. 21, HS 104**Credits:** 6 ECTS**Aim and contents of the course**

The aim of applied microeconometrics is to analyze individual behavior on the basis of micro data (cross-section and panel data of individuals, households, and firms) and evaluate the effects of economic policies and interventions at the micro level. Microeconomic methods account for the non-metric measurement and censoring of dependent variables at the individual level, selectivity and incomplete observability of endogenous variables, and the dependence of individual observations over time. The course surveys program evaluation methods aimed at causal identification of treatment effects, panel data models, discrete-choice and limited-dependent models. Several applications in empirical microeconomics and the evaluation of the effects of economic policies are presented. Students learn how to apply these methods using real-world micro data and the software package STATA.

**Requirements and grading**

The course is appropriate for MA students specializing in empirical microeconomics.

Knowledge of basic estimation methods, such as the linear regression model and the maximum likelihood method is required.

Grading will be based on the **final exam** which may be written in English or German. Additional points for the exam can be earned through group assignments in the tutorial.

**Topics**

1. Causal inference – Potential Outcome framework
2. Randomized Control Trials
3. Instrumental Variable Estimation
4. Regression Discontinuity Design
5. Difference-in-Difference
6. Panel Data
7. Binary Choice
8. Multiple Choice
9. Selection and Censoring

### **Main text books**

Angrist, J.D. & J.-S. Pische (2015). *Mastering `metrics: The path from cause to effect*. Princeton: Princeton University Press.

Angrist, J.D. & J.-S. Pische (2009). *Mostly harmless econometrics: In empiricist's companion*. Princeton. Princeton University Press.

Cunningham, S. (2021). *Causal inference: The mixtape*. Yale university press.

Wooldridge, J.M. (2013). *Introductory Econometrics*. 5<sup>th</sup> Edition. Mason (OH): south-Western Cengage learning.

**Lecture slides** and references to **selected journal articles** on empirical applications will be made available at the course **blackboard**.