



Advanced Econometrics (Prof. Henkel)

Summer Semester 2019

Language: English

Occurrence: summer semester

Scheduling: Kick-off May 3, 2019, 2:00 pm – 4:00 pm, room 2539. The course will be taught as a series of three full-day seminars in May, June, and July. Dates will be coordinated with participants.

Registration: Until May 5, 2019, via Moodle.

Description of Achievement and Assessment Methods: Participants will be assessed based on their seminar presentation (70%) and oral contributions to the course (30%).

Prerequisites: Participants need to have econometrics knowledge corresponding to an introductory Ph.D. level course in econometrics. Ideally, they should have participated in such a course, e.g. in “Applied Econometrics: An Introduction” by Professor Hottenrott.

Content: Econometric methods are important in many fields of management research. In order to derive meaningful and robust results, one has to know these methods and understand them well. This course shall convey advanced econometric methods, with a focus on approaches to address issues of selection and causality such as instrumental variables and propensity score matching. Depending on the participants’ needs, the emphasis can be shifted to some extent; we will discuss the selection of topics at the kick-off session. The focus will be on applicable knowledge, not so much on details of the theory.

Topics comprise various methods to address selection issues and come close to causality:

- Heckman selection models
- Instrumental variables
- Differences-in-Differences
- Regression discontinuity design
- Matching (e.g. propensity score matching, exact matching)
- Randomized controlled trials

Intended learning outcomes: Participants shall be able to select the appropriate econometric method given a certain problem and data set; to apply this method proficiently using STATA and/or R; to know the advantages and pitfalls of each method; and to judge if the econometric approach in published studies is correctly chosen and well executed.

Teaching and learning methods: Learning methods are a mix of seminar presentations by the participants and lectures. For each seminar session, a group of two participants will prepare a presentation on a specific topic (e.g., Heckman regression) and suggest an article in which this method is applied. The lecturer will meet with each group beforehand to aid in the preparation. The group will bring a dataset with which



participants will apply the respective method during the course (please bring laptops). We will use STATA. Participants shall prepare each session and in particular read the suggested paper such that we can have a discussion in class.

Reading list: For a selection of suggested introductory readings please see below. Further readings will be announced during the course.

- Cameron/Trivedi (2008): Microeconometrics – Methods and Applications (Theory)
- Cameron/Trivedi (2008): Microeconometrics in Stata (applications in Stata)
- Wooldridge (2003): Introductory Econometrics (2nd ed.)

Responsible for module: Prof. Dr. Joachim Henkel (henkel@wi.tum.de).