University of Hohenheim
Prof. Dr. Robert Jung
Prof. Dr. Aderonke Osikominu   Winter Term 2023/24

Effective Computing in Economics (MSc Economics/MSc IBE)

Description

The aim of the course is to make students acquainted with some important computational methods at the heart of modern economics research. It starts with a short introduction to LaTeX, a document preparation system and leading text processing program for academic work. It then moves on to equip students with essential data analytic skills using either the statistical software package R or Stata. Moreover, with the help of the scripting language in both packages students will learn how to complete simple programming tasks. Finally, students will be introduced to data sources available at the University of Hohenheim, like SOEP and the DALAHO for conducting their own empirical research.

The course is worth 3 ECTS and is offered as a blended learning module consisting of self-study elements and online meetings.

Target Audience and Prerequisites

The course is mandatory for MSc Economics students. Participation of students from other programs is in general allowed. Though, due to capacity constraints, we cannot guarantee that students from other study programs can participate in the examination and thus, earn credit on the course. More details will follow in the kick-off meeting (see below).

The course does not assume prior knowledge in Stata or R.

We offer the course in two variants: a Stata variant and a R variant. Students must choose between the two variants. Again, more details will follow in the kick-off meeting (see below).

Assessment

Grading will be based on a mid-term homework assignment (short solutions of R/Stata assignments using LaTeX) and a final computer-based test on campus. Details will be announced during the course.

Overview of Topics of the Introduction to R / STATA

1. Introduction
2. Basics for Using R / STATA
3. Data Management
4. Graphics
5. Programming Basics

Schedule

- Kick-off: Thursday, 19.10.23, 08:30–10:00; online via zoom
- Introduction R: Thursday, 08:30–10:00; first class Thu, 26.10.23 (with an introduction to LaTex) online via zoom (live, not recorded); Instructor: Markus Moessler (markus.moessler@uni-hohenheim.de)
- Introduction STATA: Wednesday, 14:15–15:45; first class Wed, 25.10.23 (with an introduction to LaTex) on campus in PC-Pool (HS 14); Instructor: Tim Ruberg (tim.ruberg@uni-hohenheim.de)

Course Materials and Blended Learning

All course materials will be posted on the ILIAS platform. Material on LaTeX is provided for self-study. Material for R and STATA is provided and discussed in the online meetings. Though, for the development of computing skills using statistical software, it is of utmost importance to gain your own experience! Thus, we highly recommend reproducing the code provided in the course and trying changes and potential extensions. To gain a deeper understanding, additional references provided in the course can be used.