Syllabus

Name:

Computer Lab in Regression Analysis

Responsible:

Professor Martin Kukuk, Chair of Econometrics

Program:	**Type:**	**Term:**	**ECTS:**
Bachelor	Lecture	Winter/Summer	6 CP

Contents & Objectives:

This course considers different distributions, their characteristics, simulation experiments, as well as the linear regression model. The software used are Excel and Gretl.

The course starts by reviewing different distributions, generating samples of these, and estimating and interpreting the descriptive statistics using Excel. At the end of this chapter, after the students are familiar with the Excel commands, a simulation experiment is elaborated.

The second part of the course deals with the linear regression model and its application to some empirical data sets. The students are introduced to empirical studies and to the freeware program Gretl.

At the end of the course an overview is given of possible problems with empirical specifications in the context of the linear regression model. The students are able to estimate a linear regression using Gretl or Excel, interpret the results, and be aware of possible shortcomings in the data.

Prerequisites:

Students attending this course should know about basic statistics. Further prerequisites are not required

Course Structure:

Week	**Content**
1-3	Empirical and theoretical moments
4-6	Different distributions and smaller simulations
7-9	Introduction to linear regression analysis
10-12	Transformed depend and independent variables, interaction terms, and multicollinearity

Literature:

Wooldridge, J.: Introductory Econometrics, Cengage Learning.

Grading:

There will be an exam at the end of the semester.

Contact:

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