



PhD Course

## Introduction to Regression Analysis

block course: October 10. and 11. 2016; 09:15 - 13:45 h

R. 4030/4031

**Course Instructor: Dr. Alexa Burmester (Universität Hamburg)**

**Course Value: 1 SWS or 2 LP**

### **Course Overview:**

This course will give an introduction to regression analysis with Stata.

### **Course Contents:**

This course will focus on basic regression analysis. Topics include (1) Data preparation, (2) Summary statistics, (3) Model free evidence, (4) Regression analysis, (5) Check of model assumptions, (6) Nonlinear models & interaction effects, and (7) Panel data.

Individual (or two-person team, with permission) research assignments will be required. Please schedule some time at Monday afternoon for the assignment. Own research questions and data are very welcome to be discussed in the course.

**Software:** Please bring a laptop with Stata 13 or newer. If applicable, you can bring your own data set of your research project.

### **Prerequisites:**

Please also study the following text:

**Backhaus, K., B. Erichson, W. Plinke und R. Weiber (2016):**

Multivariate Analysemethoden, 14. Auflage, Heidelberg  
(Kapitel 1: Regressionsanalyse)

**Assessment:** Assessment will be based on active participation and performance on assignments. Grading for students of University of Hamburg will be pass/fail.

**Registration: Please e-mail Alexa Burmester:** [Alexa.Burmester@uni-hamburg.de](mailto:Alexa.Burmester@uni-hamburg.de)  
**until 06. October 2016** (Please remember that places will be allocated in order of received registrations)

## **SYLLABUS**

- **Day 1:**
  - Data preparation
  - Summary statistics
  - Model free evidence
  - Regression analysis
  - Check of model assumptions
- **Day 2**
  - Presentation of assignment
  - Nonlinear models & interaction effects
  - Panel data
  - Summary