JUSTUS-LIEBIG-
UNIVERSITÄT
GIESSEN

GGS
Gießener Graduiertenzentrum
Sozial-, Wirtschafts- und Rechtswissenschaften

Workshop

Regression Analysis using SPSS

Organizational details

Instructor:	Dr Johannes Herrmann
Date:	February 19 & 22, 2019; 9 am – 4 pm (9.00 – 16.00 Uhr)
Location:	PC-Room (CIP-Cluster), University Library,
	Otto-Behaghel-Straße 8, D-35394 Gießen
ECTS:	2
Max. number of participants:	12

Objectives

Linear regression analysis is a powerful tool that is very flexible, depending on research questions and data characteristics. In the course, students are going to get an understanding of the fundaments of linear regression, from where more complex regression models can be developed. In the course, several typical examples of such more complex models – for example nonlinear relations and interactions – and their application in SPSS will be trained. After the course, the students should be able to detect problems and pitfalls in linear regression models and have tools to solve such problems.

Content

The course aims to give an introduction to basic concepts and variants of linear regression analysis:

- Assumptions of linear regression

- Multiple regression, interpretation of results

- Moderator analysis, mediation analysis

- Modelling of nonlinear associations using power terms, incl. centering of variables and interpretation of coefficients

- Modelling of more complex nonlinear associations using SPSS modules CURVEFIT and NLR

- Transformation of variables

- Spline regression

Methods

All topics first are discussed in a theoretical component of the session and the application with SPSS is presented; afterwards the application is trained in a hands-on component in which the students will have time to exercise with different data files. Potential pitfalls will be discussed throughout the course.

To gain the ECTS credit points participants have to:

- active participation
- work on the exercises

Target group

Open. Basic understanding of statistical concepts (mean, variance, correlation) would be an advantage. Previous experiences with SPSS are helpful, but not required.

Course language

English

Please note: As this is not an English language course proficiency in English at the C1 level of competency is required.

Registration

By February 9, 2019 via e-mail at info@ggs.uni-giessen.de.