266018 Master Seminar Quantitative Research Methods (M1 – Master Program 1st Year)

Seminar, 2.00 hours, 3.00 ECTS credits, Fall and Spring

Dates and Rooms to be announced in KUSSS

Lecturer

Dr. Peter Putz (Johannes Kepler University, Linz)

Course contents

This seminar will follow a modern data science approach. We will use R – one of the most popular statistical programming languages – hands-on throughout the course. The content of this seminar includes:

* Introduction to the programming language R, reproducible research
* Research designs for collecting primary and secondary data, with a special focus on the  internet as a data source
* Exploratory data analysis, statistical inference
* Regression models, principal component analysis
* Student project presentations

**Course objectives**

* Ability to apply statistical methods to practical research questions in management.
* Ability to understand the importance of reproducible research and create reproducible reports and presentations.

**Grading**

Class Assignments: 60%

Team research project: 40%

A minimum of 80% attendance is required.

**Recommended reading**

David Diez, Cristopher Barr, and Mine Çetinkaya-Rundel (2014). *Introductory Statistics with Randomization and Simulation. First Edition*. CreateSpace Independent Publishing Platform. A free PDF version is available at www.openintro.org.

Nina Zumel and John Mount (2014). *Practical Data Science with R*. Manning Publications Company.

Pervez N. Ghauri and Kjell Grønhaug (2010). *Research Methods in Business Studies*. 4th Edition. Financial Times Prentice Hall. Some copies are available in the JKU library.

Alternatively, for German speakers: Johannes M. Lehner und Alois Farthofer (2012).*Evidenzbasiertes Management. Methoden und Kompetenzen der Organisationsanalyse. Mit einführenden Beispielen zu R, Mathematica und SPSS*. Wien: Linde Verlag.