



## Data Analysis and Statistics using R and RStudio

### Target group

Targeted are Doctoral Candidates or Post Docs (besides the Faculty of Medicine) working on empirical research projects or planning to do so, who need to analyze data statistically. Especially participants with no programming experiences are addressed. It will be an applied course making use of the Statistics Program R and the development suite RStudio.

### Aims

The aim of this workshop is to provide an up-to-date practical approach to data analysis techniques and statistics. Focus will be laid on direct applications and examples. Doctoral Candidates or Post Docs will learn to adapt the concepts to their own research projects.

### Topics

- Introduction to R and RStudio
- From a vector to a data.frame
- Import and export csv files
- Why are packages so helpful
- Visualization of the data (plots)
- How to describe your data using statistics
- How to enhance R-programming efficiency
- Addressing individual issues

### Procedure

The workshop begins with an introduction to R and RStudio. Based on practical examples the statistics program RStudio will be used to visualize and analyze the data, the results will be displayed using R as well. Basic programming steps will be explained, data processing will be exercised and statistical methods discussed. Based on the needs and presentations of the participants, individual topics can be addressed.

### Requirements

Participants are required to give a short presentation of their research project (max 10 minutes). Please bring your own laptop to the workshop and have R and RStudio pre-installed. If you got problems installing R or RStudio please contact in advance [ralf.zeidler@fridata.de](mailto:ralf.zeidler@fridata.de) for assistance.

Trainer	Ralf Zeidler, Freies Institut für Datenanalyse
Workload	22 h
Date	Tue, 24.11.2016, 08:45 – 17:00 h Fri, 25.11.2016, 08:45 – 17:00 h
Registration	Please register via the campus management portal <a href="#">HISinOne</a> .
Location	Seminar Room of Freiburg Research Services (FRS), Friedrichstr. 41-43, 2nd floor
Number of Participants	8 Docs (8 Postdocs)