

# **Introduction to R Workshop**

### **Cologne Center for Comparative Politics | University of Cologne**

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In this 2-days R workshop you will master the basics of R (in RStudio). This is a 'hands-on' course where participants are given generalizable bits of R-code to work on and are expected to actively participate. In addition. it intends to prepare prospective students of *Dr. Bruno Castanho's* course "Introduction to Quantitative Analysis".

### Vancancies: 50

Please fill in this form to subscribe to the workshop (link).

If you have questions, please email: azevedo@wiso.uni-koeln.de.

#### Location

Building 203, Seminarraum 0.06 (Hörsaal), Gottfried-Keller-Str.6, 50931 Köln

#### Date

25th-26th February 2019 (Monday-Tuesday), from 09:45 until 17:00.

## **Course Description**

Materials and generalizable R code will be provided as to maximize student's learning in class.

- Install R, R-Studio, TinyTeX and ('best') R packages (for beginners). Step-by-step.
- Learn how to set up RStudio panels, options, as well as understand the basic uses for each type of R input/output files (.R, Rdata, .rmd, Rproject, .html, .pdf, Shiny).
- Learn how to importing and export data, and deal with vectors, sequences, operators, missing values, characters, factors, arrays, matrices, data-frames and lists.
- Learn about the several ways to manipulate data: subset, convert, merge, cast/melt (wide-to-long & long-to-wide formats).
- Learn about the basics of data exploration in R: summaries, tables, cross-tabulation and basic statistics.
- Discuss the Reproducibility crisis in science, and learn how to do reproducible research documents in R with R markdown.

## Intended audience and prerequisite

- There are no prerequisites or necessary prior knowledge to attend this class.
- But it is desirable to bring along your laptops.