CCNM17-107, Statistics and Methodology,
Course Description

Aim of the course

Aim of the course: The course starts with an introduction of basic concepts of statistics and continues with methods of univariate statistics. Depending on the audience, we can also address more complex methods such as multiple regression, analysis of covariance, MANOVA, and exploratory factor analysis. For carrying out statistical tests we use SPSS and R-Studio.

Learning outcome, competences

knowledge:
- use SPSS and R-Studio
-

attitude:
- More open to the explorative and conceptual analysis
- Statistics is understandable and can be used creatively

skills:
- Flexible data analysis with spreadsheet
- Finding new (and old but unused) methods

Content of the course

Topics of the course
- distributions and estimation of distribution parameters;
- hypothesis testing,
- types of errors,
- significance, power,
- effect size
- correlation and regression;
- comparing two or more means;
- between-subject and within-subject designs;
- non-parametric methods

Learning activities, learning methods:
Lectures and interactive discussions

Evaluation of outcomes

Learning requirements, mode of evaluation, criteria of evaluation:
requirements
- Data analysis methods
- Summarizing the methodological literature
-

mode of evaluation: short exams and project work

criteria of evaluation:
-

Reading list

Compulsory reading list

- Coolican, H. (2014). Research Methods in Statistics and Psychology. London: Psychology Press

Recommended reading list

-
-