

Core Facility Computational Bioanalytics

Statistical data analysis with SPSS for Life Science Researchers: Survival analysis and Analysing Categorical data

The aim of this **first part** of the course is to describe the various methods used for modeling and evaluating survival data, also called time-to-event data. General statistical concepts and methods discussed in this course include survival and hazard functions, Kaplan-Meier graphs, log-rank and related tests, Cox proportional hazards model.

The **second part** of the course will focus on contingency table data, where the cell entries represent counts that are cross-tabulated using categorical variables. Tests for (conditional) independence are discussed in the context of odds-ratios, relative risks and simple Chi²-tests. McNemar test, estimation of cut-offs, ROC/AUC analysis, sensitivity and specificity are further discussed statistical methods and concepts.

Upon successful completion of this course, participants will be able to check test specific assumptions and will be familiar with common statistical methods in survival and categorical data analysis. The participants will have the ability to choose the suitable statistical analysis method for different data sets and will have insight how to interpret statistical results.

Teaching and learning method: 20% lecture and 80% interactive

Languages of instruction: English or German

Target audience: PhD students, technicians and researchers

Entrance qualifications: SPSS basics course

Costs: 150 Euro (University)/ 300 Euro (Company)

DFP: 7 points

Registration: Website [Medical Research Academy | \(medunigraz.at\)](https://www.medunigraz.at)

Lecturer: Katharina Eberhard, BA MA

As the number of participants is limited (min. 3 and max. 8), please register early to confirm your seat!

December 7th 2021 (9am-4pm)

Location: SR EG-086/087

Contact: zmf-sekretariat@medunigraz.at

Phone: +43 (0)316 385-73001

Center for Medical Research

Address: Stiftingtalstrasse 24 A-8010 Graz

<https://zmf.medunigraz.at>