

Course program

Applied Statistics in Neuroscience

1st session. Wednesday 22nd September, 17:00-19:00h

Basics in Statistics

- From sample to population
- Types of data
- Types of variables
- Exploratory analysis:
 - Central tendency measures
 - Dispersion measures
 - Descriptive graphics
- Databases
- Research planning

2nd session. Thursday 23rd September, 17:00-19:00h

Inferential Statistics and Sample Size Estimation

- Confidence intervals
- Hypothesis testing
- Types of error
- Sample size
- GPower
- Examples



3rd session. Monday 27th September, 17:00-19:00h

Introduction to regression

- Contingency tables: Chi-square test
- t test
- ANOVA
- Multiple comparisons and other issues
- Linear regression
- Assumptions
- Generalised regression models
- Non-linear regression
- Introduction to R-Commander

4th session. Tuesday 28th September, 17:00-19:00h

Practical part I

- Statistical analysis and interpretation of the results of three examples provided by the students (Western by NP&S, Western by MACG, and Imaging by CP)

5th session. Wednesday 29th September, 17:00-19:00h

Practical part II

- Statistical analysis and interpretation of the results of three examples provided by the students (Behaviour studies by CB, RM, and PH).

