

Course for Ph.D. students 40th cycle (Nov 2024 – Oct 2027)

Practical biostatistics (1 ECTS)

Prof. Massimiliano Tognolini (University of Parma)

Course language: English

Approximative scheduling: Early February 2025

The exact date and time will be announced by e-mail and on the website in the page “Active courses” for each session.

Course description

Practical lessons on biomedical data analysis and interpretation. The course will include a prominent amount of exercise by means of Excel and Prism – GraphPad. The following topics are expected to be addressed

Descriptive statistics:

- distributions, measures of central tendency, measures of dispersion, skewness

Data representation:

- bar plot, whisker plot, scatter plot, low-to-high

Inferential statistics

- population and sample
- comparing a sample with a population, a sample with a sample: t-test, p significance, type I and type II error.
- comparing 2 or more groups: One-way ANOVA, Two-way ANOVA
- simple regression and correlation
- non-parametric statics: χ^2 test

Good statistical practices in experimental design and their reporting

Practical course.

The course is limited to 15 students

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