Course for Ph.D. students
37th cycle (Nov 2021 – Oct 2024)

Practical biostatistics (1 ECTS)

Prof. Massimiliano Tognolini, University of Parma

Course language: Italian

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

To attend the course please contact:
Prof. Massimiliano.tognolini (Massimiliano.tognolini@unipr.it unipr.it)

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 inferential statistics: Chi squared test

Good statistical practices in experimental design and their reporting Practical course.