Course for Ph.D. students
36th cycle (Nov 2020 – Oct 2023)

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)

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

Good statistical practices in experimental design and their reporting
Practical course. The course is limited to 18 students.