

# Course announcement

## Practical biostatistics

*Prof. Massimiliano Tognolini (University of Parma)*

**February 6, 2024 - 8:30 - 10:30**

**February 7, 2024 - 8:30 – 10:30**

**February 9, 2024 - 8:30 – 10:30**

### Pharmacy building

**1 ECTS (CFU)**

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:  $\chi^2$  test

Good statistical practices in experimental design and their reporting

Practical course.

**The course is limited to 15 students**

**Please register before January 29, 2024 by sending an e-mail to [Massimiliano.tognolini@unipr.it](mailto:Massimiliano.tognolini@unipr.it)**