

## DESCRIPTION

The course is an overview on the fundamental principles and tools of statistical inference.

## LECTURE MATERIAL

The lecture material will be made available soon.

## OUTLINE

- Univariate descriptive statistics: types of data; graphical representations; means; variability.
- Bivariate descriptive statistics: correlation.
- Probability: elementary probability rules; random variables; common families of distributions; sampling distributions.
- Statistical inference: point estimation; confidence intervals; statistical tests about hypotheses.

## LECTURES

At end of each lecture, some exercises will be assigned. The students are encouraged to collaborate to solve them. Some solutions will be shown in class. All the solutions are available online at the end of the course.

## REFERENCES

[1] Agresti, A., & Franklin, C.A. Statistics: The Art and Science of Learning from Data, 3rd Edition (2013).

More advanced book:

[2] Casella, G., & Berger, R.L.: Statistical Inference, Duxbury Press (2001).

## PROFESSOR'S OFFICE HOURS

By appointment: [FRANCESCO.DOTTO@UNIROMA3.IT](mailto:FRANCESCO.DOTTO@UNIROMA3.IT)

