

COURSE DESCRIPTION

The course aims to endow students with basic knowledge of fundamental principles and tools of descriptive and inferential statistics.

LECTURES

Two-weeks daily lectures aim to illustrate the fundamental contents of the course, using the reference textbooks as guideline. Complementary indications and examples will be provided in class. As additional material, take-home exercises will be assigned at the end of each topic. Some of them will be solved in class upon request of the students. All the solutions will be available at the end of the course.

OUTLINE

- Descriptive statistics: types of data; graphical representations; summary statistics.
- Elements of probability: elementary probability rules; combinatorial calculus.
- Random variables: common families of distributions; sampling distributions.
- Statistical inference: point estimation; confidence intervals; hypotheses testing.
- Basic regression models: least squares estimate; best linear unbiased estimators.

LECTURE MATERIAL

The lecture material will be available on the course website:

[Statistics Material - Master of Science in European Economy and Business Law \(uniroma2.it\)](https://www.uniroma2.it)

REFERENCES

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

More advanced books:

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

[3] Cortinhas, C. & Black, K. - Statistics for Business and Economics, 1st European Edition (2012).

PROFESSOR'S OFFICE HOURS

By appointment:

FRANCESCA.CENTOFANTI@STUDENTS.UNIROMA2.EU

