



Syllabus
Statistical tools for decision making
CFU 6
Prof. Roberto Rocci

Course Description

The course provides the basics of descriptive statistics and statistical inference, highlighting the potential applications in political, economic and social sciences.

Teaching Method

Classroom teaching, exercises, discussion of case studies.

Schedule of Topics

Topic 1	Univariate descriptive statistics: types of data; graphical representations; means; variability.
Topic 2	Bivariate descriptive statistics: contingency; correlation; regression.
Topic 3	Probability: elementary probability rules; random variables; common families of distributions; sampling distributions.
Topic 4	Statistical inference: point estimation; confidence intervals; statistical tests about hypotheses

Textbook and Materials

Textbook

Alan Agresti, Christine Franklin

Statistics: The Art and Science of Learning From Data

Pearson; 3th International Edition

ISBN 9781447964186

(Textbook sections: 1.1-2, 2.1-5, 3.1-4, 4.1-3, 5.1-4, 6.1-3, 7.1-3, 8.1-4, 9.1-6)

Further reading

Alan Agresti, Barbara Finlay

Statistical Methods for the Social Sciences

Pearson; 4th Edition.

Assessment

The final exam is a written test consisting of theoretical questions and exercises to be answered in 90 minutes. It is a closed book exam. Students are not allowed to consult any materials or other sources of information (including notebooks, laptops, dictionaries, mobile phones) during the exam.

MIDTERM EXAM

There is an elective midterm (written) exam. If a student passes the midterm exam and takes the final exam immediately after the course, then his/her final exam is only about the last topics discussed in the course. The final grade is the average of the two grades obtained in the midterm and final exams.

Office hours

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