



Academic Year 2019-2020

Syllabus

Statistical tools for decision making

CFU 9

Prof. Leonardo Emberti Gialloreti

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; simple linear 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; multiple linear regression.

Textbook and Materials

Textbook

Alan Agresti, Christine Franklin, "Statistics: The Art and Science of Learning From Data"
Pearson; 4th International Edition, ISBN 9781447964186.

Further reading

Alan Agresti, Barbara Finlay, "Statistical Methods for the Social Sciences", Pearson; 4th Edition.

Assessment

The final (oral) exam consists of theoretical questions and of the discussion of a (written) critical review produced by the student. The topic of the review will be assigned to each student during the course. Non-attending students will not need to produce and discuss a critical review, but their final exam will be both written and oral (see below), covering all the topics of the course.

MIDTERM EXAM

There will be one elective midterm (written) exam, consisting of theoretical questions and exercises. It is highly recommended to attend the midterm exam. Students who fail or do not attend the midterm examination, as well as non-attending students, can nevertheless give the final examination, but for them it will be both written and oral, covering all the topics of the course. The final grade will be the average of the two grades obtained in the midterm and final exam (or of the written and oral exam for students who failed or did not attend the midterm exam).

Office hours

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By appointment.

NOTE: Since the course is provided for a limited number of students, **Erasmus or non Global Governance students** who would like to attend the course need to contact the Secretariat of Global Governance by e-mail global.governance@uniroma2.it for registration and inform the Professor of the course. They are required to sign a code of conduct like all Global Governance students, accepting all values and rules. Please read it carefully before enrolling and notice that attendance is required from the very first lesson.