Module:
Mod.I – Quantitative methods

Name of course:
Statistics

Course Instructor:
Isabella Corazziari

Course description:
The course provides the basics for descriptive statistics, probability calculus and statistical inference, highlighting the potential applications in political, economic and social sciences.

Topics

- Univariate descriptive statistics:
  types of data; graphical representations; means, variablity

- Bivariate descriptive statistics:
  correlation

- Probability:
  elementary probability rules; random variables; common families of distributions, sampling distributions

- Statistical inference:
  point estimation; statistical tests about hypothesis

Duration:
27 hours (Theory: 21 hours; Practical sessions: 6 hours)

Exam:
The final exam consists of two parts: a written test (80%) and a take-home assignment (20%) to be returned via email. The written exam consists of theoretical questions and exercises to be answered in 60 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.

Recommended readings:
Alan Agresti, Christine Franklin
Statistics: The Art and Science of Learning From Data
Pearson; 3th International Edition
ISBN 9781447964186

Links:
http://www.amstat.org/asa/what-is-statistics.aspx