



Scuola Superiore
Sant'Anna



Ph.D. in Management

Title of the course: **Applied Statistics for Social Science**

Lecturer: **Chiara Seghieri**, Istituto di Management, Scuola Superiore Sant'Anna. c.seghieri@sssup.it

Course Description

The course intends to provide a systematic introduction to quantitative approaches to data collection and analysis in the social sciences. The course is a beginning level course and serves as an introduction to the more sophisticated approaches. Emphasis will be placed on the development of statistical concepts and statistical computing skills, rather than mathematical details.

Students will have the opportunity to develop a critical understanding of the use of statistics in contemporary social science, to think about their data, to think of ways to assess the data appropriateness, extracting the most information using the most common statistical methods and to critically review papers that make use of statistics.

Lectures Topics

Methods for organizing, summarizing and displaying data; elements of sample surveys, experimental design and observational studies; methods of parameter estimation and hypothesis testing in one- and two-sample problems; regression with one or more predictors; correlation; and analysis of variance.

Upon successful completion of this course, the student should be able to describe a sample and know which statistics are appropriate for measuring center and spread, understand randomness, sampling techniques, apply the classical, p-value, and confidence interval approaches to hypothesis testing, regression analysis interpretation, presentation and diagnostics.

The course will take place at Istituto di Management, Palazzo Alliata, Piazza Martiri
December 3rd, 2012, 9:30am – 11:30am
December 13rd, 2012, 9:30am – 11:30am

December 17th, 2012, 9:30am – 11:30am

December 20th, 2012, 9:30am – 11:30am

January 15th, 2013, 3:00pm – 5:00pm

References list

Robert M. Groves, Floyd J. Fowler *Survey Methodology* (2004).

Wright, Daniel B. *Understanding statistics: an introduction for the social sciences* (1997)

Freedman, David *Statistics* (1991)