



Scuola Superiore  
Sant'Anna

Phd in Management

Title of the course: **Analysis of a top impact factor paper using Stata software**



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Dates: April 10-11-12-13, 2011

**Short description of the course:**

This course is designed to introduce doctoral students to the language of Stata statistical software in order to analyze, interpret, and present both numerically and graphically the findings.

As motivating and instructive example both lectures and labs will be based on the analysis of a real study published in one of the most prestigious scientific journals in science (ISI Impact Factor=54).

The course emphasizes how Stata software can facilitate academic publishing.

By the end of the course students will be capable of using Stata® proficiently for: assessing the functional (i.e. J-shaped, U-shaped, linear) relation between a continuous independent variable and the response variable using flexible tools (i.e. splines), plotting



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changes in the predicted response as function of covariates with confidence intervals, building a multivariable model, assessing and interpreting interactions between independent variables, performing a sensitivity analysis for potential biases in the study (i.e. missing data).

### **Student commitment**

Upon enrolling into this course, students commit to come to class both for lectures and labs. Attendance is compulsory.

### **Schedule**

It is a full time course 9:00 to 12:30 and 13:30 to 17:00, from Tuesday April 10 to Friday April 13, 2012. Each session (morning and afternoon) includes three parts: lecture, exercise, and review to the exercise.

Date	Topic	Description	Hours
10-Apr	The basics	Univariate analysis of independent variables	7
11-Apr	Regression models	Linear, Quantile Logistic	7
12-Apr	Flexible model building	Splines Interactions Predictions	7
13-Apr	Sensitivity analysis	Missing data	7



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Lectures will take place at the Istituto di Management, Piazza Martiri della Libertà 24, Pisa. Possible changes will be notified in the PhD calendar at [www.phdmanagement.sssup.it](http://www.phdmanagement.sssup.it)

### **Course material**

Lecture notes, links, further readings, datasets, exercises, and solutions will be available at

<http://nicolaorsini.altervista.org/sanna/is.htm>