



Scuola Superiore  
Sant'Anna



**Phd in Management**

Title of the course: **Working with Stata**

Lecturer: **Nicola Orsini**, Associate Professor, Karolinska Institutet

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Dates: April 2-5, 2013

**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 changes in the predicted response as function of covariates with confidence intervals, building a multivariable model, assessing and interpreting interactions between explanatory variables, analyzing both independent and dependent (i.e. panel/longitudinal, clustered) outcomes.

## Student commitment

Upon enrolling into this course, students commit to come to class both for lectures and labs. Attendance is compulsory. Students need to make sure they have Stata installed on their laptops.

## Schedule

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

| Date      | Topic                           | Description                                  | Hours |
|-----------|---------------------------------|--|-------|
| 02-Apr-13 | The basics                      | Univariate analysis of independent variables | 7     |
| 03-Apr-13 | Models for independent outcomes | Linear, Quantile, Logistic models            | 7     |
| 04-Apr-13 | Flexible model building         | Splines<br>Interactions<br>Predictions       | 7     |
| 05-Apr-13 | Models for dependent outcomes   | Panel/Longitudinal data                      | 7     |

## Course material

Lecture notes, links, further readings, datasets, exercises, and solutions will be available at <http://nicolaorsini.altervista.org/sanna/is.htm>