



Scuola Superiore
Sant'Anna



Phd in Management

Working with Stata

Nicola Orsini, Karolinska Institutet

Email: nicola.orsini@ki.se

Web: <http://ki.se/people/nicors>

Dates: April 7-10, 2015

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.

Specific topics are: 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 continuous and binary 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
7-Apr-15	The Basics	Univariate analysis of categorical and continuous variables	7
8-Apr-15	Models for continuous outcomes	Linear regression Predicted Mean Differences Testing hypothesis	7
9-Apr-15	Models for binary outcomes	Logistic regression Predicted Odds Ratios Graphical presentation of data and predicted responses	7
10-Apr-15	Flexible modeling of predictors	Splines Interactions Missing data	7

Course material

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