

## *MOD. I – QUANTITATIVE METHODS*

Course Title: **Stata workshop and tests**

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### Course Description:

The aim of this course is to introduce students to the capabilities of Stata and to essential concepts of statistical and econometric analysis within the software. For the purposes of the classes students will be expected to have basic knowledge of statistics and econometrics.

Stata is a very comprehensive data analysis package for multiple research purposes. The course will equip students with the necessary knowledge and understanding of Stata. The course will cover topics like getting started with Stata, basic commands for data management, basic statistical outcomes, presenting data in tables, graphical analysis and basic econometric analysis.

The successful completion of the course should end up in an understanding of Stata capabilities and resources for research purposes, being familiar with the standard Stata syntax and documentation allowing for implementation of estimation procedures. Students should also be able to manage data, perform exploratory data analysis, produce descriptive statistics, publication quality graphs as well as conduct simple econometric analysis.

### Course Content:

#### 1 WELCOME TO STATA (2)

- 1.1 Stata and the Operating System
- 1.2 Help and Learning Tools
- 1.3 Stata Syntax

#### 2 HANDLING DATA (4)

- 2.1 Basic concepts and commands
- 2.2 All about variables
- 2.3 Documenting your work: Do files, Log files, variable and value labeling
- \*2.4 Labor saving techniques: macros (global, local); looping over variables and values

#### 3 DATASET MANAGEMENT (2)

- 3.1 Import and Export Activities
- 3.2 Combining Datasets
- \*3.3 Shaping Datasets

#### 4 STATISTICS (3)

- 4.1 Descriptive statistics
- 4.2 tabulate

4.3 table  
4.4 tabstat

## 5 DRAWING GRAPHS (3)

5.1 Basic graph commands

5.2 Managing graphs

5.3 Graph examples

## 6 BASIC ECONOMETRIC ANALYSIS (6)

6.1 Correlation

6.2 OLS

6.3 Analyze regression output

6.4 Hypothesis tests

6.5 Results tables

### Readings:

- Getting Started with Stata for Windows, Stata Press Publications. 2009.
- An Introduction to Modern Econometrics Using Stata, Christopher F. Baum, 2006.
- Statistics with Stata, Lawrence C. Hamilton.

### Web Materials:

- <http://www.ats.ucla.edu/stat/stata/>
- <http://data.princeton.edu/stata/>
- <http://www.stata.com/links/resources-for-learning-stata/>