

## Research Methods

## University of Warwick

Term 2, 2011/12

**Module lecturer:** Carlos Noton

**Aims:** This is a core module which aims to equip the students with the necessary computational skills required for research. The module is therefore organised in terms of various lectures with specific topics as detailed below.

**Contents:** Introduction to the leading software applied in Economics such as STATA, MATLAB and Latex. The applications will cover dataset management, standard econometrics (linear regression model and more complicated settings), matrix manipulation, simulations and basic optimization.

The lectures will present a program code as example in each topic.

**Organisation:** There will be two hours per week used for lecture presentations. The class will meet every Wednesday at 5 pm until 7pm.

**Assessment:** There is no formal assessment. Suggested exercises will provided but not graded.

**Lectures run from weeks 16-22 inclusive (Wednesday 5-7 pm, MS.01).**

### Lecture Structure

**Week 1-2:** Introduction, Management of Datasets (STATA and txt editors), Descriptive Statistics, Graphs.

**Week 3-4:** Linear Regression Models, Testing, Output Analysis, Non-linear Models.

**Week 5:** Matrix Management (MATLAB), Basic Optimization.

**Week 6:** Latex, Writing and Presenting Documents.

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