JÖNKÖPING INTERNATIONAL
BUSINESS SCHOOL
JÖNKÖPING UNIVERSITY

Master/Ph.D. COURSE:

# Microeconometrics using STATA

Spring semester 2017

**Course credits:**
7.5 ECTS

**Education Cycle:**
Third cycle, doctoral program course

**Course managers/examiners:**
Professor Andreas Stephan

**Course language**
English

**Prerequisites:**
Basic courses in Statistics, introductory course in Econometrics/Quantitative Methods is recommended, but not required

**Purpose and objectives**
The *Microeconometrics* Using STATA course is designed to help master or doctoral students in Economics to be prepared for doing empirical econometric analyses in their research using individual level data of persons, households or companies. Focus will be given to issues of identification and causality when analyzing research questions with the help of micro data. The course will provide an up-to-date overview on the most commonly used microeconometric methods, e.g., propensity score matching, instrumental variables methods, panel data methods including dynamic models, bootstrapping inference, quantile regression techniques and non-linear models for binary, multinomial or count outcomes.

**Course content**
The contents of this course include

(i) Experimental versus non-experimental data
(ii) STATA basics
(iii) Using simulations
(iv) Linear (dynamic) panel data models
(v) Bootstrapping inference
(vi) Quantile regression methods
(vii) Non-linear (panel) models
(viii) Robust standard errors

**Intended learning outcomes:**
After completing the course the student should be able to:

**Knowledge and understanding**

1. Understand the theoretical foundations of modern microeconometric methods
2. Describe the fundamental problem of causal inference in non-experimental situations.
3. Know about the occurrence of non-standard error issues

**Skills and abilities**

4. Use STATA to implement microeconometric models for a given approach
5. Transform and handle data within STATA
6. Write own codes and routines in STATA for performing non-standard tasks

**Judgement and approach**

7. Assess the robustness of obtained results and understand the limitations of the various methods

**Course/classes methodology**
Lectures (12 hours), computer labs (12 hours) and homework assignments (3).

**Examination**
Written examination (60%) at the end of the course, which covers ILO (1), (2) and (6). ILOs (3)-(6) are examined in the assignments and give 40% of the overall grade.

**Course evaluation**
A course evaluation will be conducted at the end of the course.

**Schedule**
Course start: March 2017
Register for the course by contacting Andreas Stephan (JIBS, Box 1026, 551 11 Jönköping/phone. 036-101760 e-mail Andreas.Stephan@jibs.hj.se).

**Course Literature**

- A. Colin Cameron and Pravin K. Trivedi, Microeconometrics Using Stata, latest edition, STATA press

**Additonal readings**

- Badi Baltagi, Econometric Analysis of Panel Data, 4th Edition, Wiley, latest edition.
- A. Colin Cameron and Pravin K. Trivedi, Microeconometrics: Methods and Applications, Cambridge University Press, latest edition
- Joshua Angrist and Jörn-Steffen Pischke, Most harmless Econometrics. An Empiricist's Companion. Princeton university press, latest edition.
- Several articles provided when the course starts.