

Academic Year: ( 2023 / 2024 )

Review date: 16-06-2023

Department assigned to the subject: Economics Department

Coordinating teacher: CARRASCO PEREA, RAQUEL

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 2

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

Statistics, Introduction to Econometrics

**OBJECTIVES**

This course aims at providing the student with econometric skills used in empirical microeconomic research. The student should gain an understanding and working knowledge of instrumental variables, static panel data, and non-linear estimation techniques. This goal will be accomplished through classroom lectures, practical sessions, and problem sets.

**DESCRIPTION OF CONTENTS: PROGRAMME**

The objective of this course is to deal with some essential topics in the empirical analysis of microdata (households, firms). We will study issues in different models' specifications, estimations, and testing. The emphasis of the course is both on the econometric techniques and the economic applications. Development of programming skills in Stata will be essential to the course. The course is divided into the following major topics:

1. Instrumental Variables Estimation: Two-stage least squares.
2. Pool of cross sections.
3. Linear Models for Panel Data: Static models and control for unobserved heterogeneity. First differences, within-groups, between-groups, and GLS estimators. Specification tests.
4. Difference in Difference estimators.
5. Policy evaluation: Causality and random assignment. Matching. Regression Discontinuity.

**LEARNING ACTIVITIES AND METHODOLOGY**

Practice is essential to learning and understanding econometric tools. Therefore, there will be computer practice sessions and exercises as homework. Database management will be an integral and essential part of the course. The course will focus on how the nature of the data available and the research questions lead to the choice of appropriate econometric techniques. Moreover, most of the motivations for all topics dealt with in the course will stress the need to be able to infer policy implications from the research results.

An essential component of this course is experience with analyzing data. There are several statistical packages for analyzing data. In this course the chosen software is STATA. Students will also be encouraged to attend office hours in order to receive clarification on material covered in class.

**ASSESSMENT SYSTEM**

Grades will be based on:

- o Exercise sets
- o Final exam

**% end-of-term-examination:** 60

**% of continuous assessment (assignments, laboratory, practicals...):** 40

**BASIC BIBLIOGRAPHY**

- Wooldridge, Jeffrey . M. Introductory Econometrics: A Modern Approach, Thompson, 2002

#### ADDITIONAL BIBLIOGRAPHY

- Arellano, M. Panel Data Econometrics, Oxford University Press., 2003
- Cameron, A.C. y P.K. Trivedi Microeconometrics, Cambridge University Press, 2005
- Wooldridge, J.M. Econometric Analysis of Cross Section and Panel Data, The MIT Press, 2010