Microeconometrics

Academic Year: (2021 / 2022) **Review date: 24-05-2021**

Department assigned to the subject: Economics Department

Coordinating teacher: CARRASCO PEREA, RAQUEL

Type: Electives ECTS Credits : 6.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Statistics, Econometrics

OBJECTIVES

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

DESCRIPTION OF CONTENTS: PROGRAMME

1. Generalized Method of Moments Estimation. Asynthotic properties and specification tests. Validity of the instruments.
2. Linear Models for Panel Data: Static models and control for unobserved heterogeneity. Within-groups, between-groups and GLS estimators. Specification tests. Dynamic models. Models with strictly exogenous and predetermined variables. The bias of the within-groups estimator. GMM estimation of dynamic panel data models.
3. Discrete Choice Models: Binary choice models for cross sectional data: linear probability models, probit and logit models. Interpretation. Maximum likelihood estimation. Multiple choice models: multinomial probit and multinomial logit. The assumption of independence of the irrelevant alternatives. Simulated method of moments estimation. Extensions: ordered probit and sequential probit models.
4. Sample Selection Models: Tobit and truncated models. Generalized sample selection models: maximum likelihood estimation and two-stage estimation. Switching regression models.

LEARNING ACTIVITIES AND METHODOLOGY

Practical Session

Practice is essential to learning and understanding econometric tools. Therefore, there will be computer practice sessions and also computer 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 results of the research. The course will consist of 15 hours of theory lectures and 15 hours of computer practices.

An important 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 the office hours in order to receive clarification on material covered in class.

ASSESSMENT SYSTEM

Grades will be based on:

- Class tests: 50%.
- Final Exam: 50%

% end-of-term-examination:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

BASIC BIBLIOGRAPHY

- Amemiya, T Advanced Econometrics, Blackwell, 1985
- Arellano, M. Panel Data Econometrics., Oxford University Press, 2003
- Arellano, M. Panel Data Econometrics., Oxford University Press, 2003
- Cameron, A.C. y P.K. Trivedi Microeconometrics., Cambridge University Press., 2005
- Deaton, A. The analysis of household surveys., John Hopkins University Press, Baltimore, 1997
- Goldberger, A.S. A course in econometrics., Harvard University Press., 1991
- Gourieroux, C Econometrics of qualitative dependent variables, Cambridge University Press, 2000
- Lancaster, T. The econometric analysis of transition data, Cambridge University Press, 1990
- Maddala, G.S Limited-dependent and qualitative variables in econometrics., Cambridge University Press., 1983
- Manski, C.F Analog estimation methods in econometrics, Chapman and Hall, 1988
- Pudney, S Modelling individual choice. The econometrics of corners, kinks and holes, Basil Blackwell, 1989
- Wooldridge, J.M. Econometric Analysis of Cross Section and Panel Data, The MIT Press., 2010

ADDITIONAL BIBLIOGRAPHY

- Angrist and Piscke Mostly Harmless econiometrics, Princeton University Press, 2009, 2009