

Academic Year: ( 2020 / 2021 )

Review date: 15-12-2020

Department assigned to the subject: Economics Department

Coordinating teacher: CACERES DELPIANO, JULIO

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 2

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

A 14-week introductory course on Econometrics.

**OBJECTIVES**

This is an introductory course to applied research in Economics. Linear econometric techniques together with the required programming skills will be studied. Actual examples of influential studies will be presented, and in some cases, replicated in computer sessions.

**DESCRIPTION OF CONTENTS: PROGRAMME**

Section 1: Data Management and regression: Linear regression model. Models with binary dependent variable. Use and organization of gretl databases. Gretl regression.

Section 2: Instrumental Variables: Endogenous explanatory variables . Consequences on estimation and inference. Valid instruments. Tests of endogeneity and overidentifying restrictions .

Section 3: Pooled Data with Cross Sections. The difference-in-differences estimator. Panel data. First difference estimator. Fixed effects estimator. Random effects estimator.

**LEARNING ACTIVITIES AND METHODOLOGY**

The course will consist of three parts:

- Theoretical lectures based on the presentation of influential empirical papers. Reference bibliography will be provided in order to aid the students in delving deeper into the topics they find more interesting.
- Theoretical lectures to teach the students the use of econometric software at an intermediate level. Class notes will be provided.
- Reduced classes in computer classrooms to allow the students to replicate some of the empirical papers presented in class.

The theoretical lessons have the goal of facilitating the understanding of several academic empirical papers. Computer classes aim to give the students the chance of apply the econometric techniques learnt in several courses in order to do empirical work.

**ASSESSMENT SYSTEM**

The continuous evaluation consists of three quizzes. All the quizzes will be considered in the final grade. It will not be possible to take any of the quizzes on a different date than the one scheduled. Not taking a quiz will imply a mark of 0 on that quiz. Students not attending at least two quizzes will get a 0 in the continuous evaluation. However, students missing at most a quiz can take an extra quiz to replace this missing grade. This recovering quiz will be at the end of the quarter and it will cover the complete syllabus. This quiz will be schedule the day of the ordinary exam.

The final grade in the ordinary call will depend 100% on the continuous evaluation. In the extraordinary call, it will correspond to the maximum of the continuous evaluation and the final exam.

Note in Ordinary Call = Continuous Evaluation

Note in Extraordinary Call = max {Continuous Evaluation; Final}

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

**BASIC BIBLIOGRAPHY**

- James H. Stock y Mark M. Watson Introduction to Econometrics, Pearson Education, 2011

- Joshua Angrist and Jörn-Steffen Pischke Mastering Metrics. The Path from Cause to Effect, Princeton University Press, 2014