

Academic Year: ( 2019 / 2020 )

Review date: 04-05-2020

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. The quiz with the lowest mark will not be considered for 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. Students must obtain at least 50% in the final exam to pass the course. This rule applies both in the regular and the second call. In those cases in which, after weighting the grades from the continuous evaluation and the final exam, the final grade is above (or equal) 5 but the minimum grade in the final exam is not obtained, the final grade in the course will be 4 (Failed), unless the exam grade is below 3, in which case the final grade will be 3 (Failed).

"Convocatoria Ordinaria" Final Grade = Continuous Evaluation  $\times$  0.6 + Final  $\times$  0.4

"Convocatoria Extraordinaria" Final Grade= max{Continuous Evaluation  $\times$  0.6+ Final  $\times$  0.4; Final}

<b>% end-of-term-examination:</b>	40
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	60

#### 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