

## SUBJECT TEACHING GUIDE

G944 - Applied Econometrics

### DOUBLE DEGREE IN ADMINISTRATION AND BUSINESS MANAGEMENT AND ECONOMICS

Degree in Economics  
Academic year 2021-2022

#### 1. IDENTIFYING DATA

Degree	DOUBLE DEGREE IN ADMINISTRATION AND BUSINESS MANAGEMENT AND ECONOMICS		Type and Year	Compulsory. Year 5 Compulsory. Year 4	
Faculty	Faculty of Economics and Business Studies				
Discipline	Subject Area: Econometric Methods Module: Training in Quantitative Methods				
Course unit title and code	G944 - Applied Econometrics				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web	<a href="http://moodle.unican.es">http://moodle.unican.es</a>				
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. ECONOMIA
Name of lecturer	JOSE LUIS GALLEGO GOMEZ
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Other lecturers	NAMKEE AHN JUNG

#### 3.1 LEARNING OUTCOMES

- To get familiar with the stylized facts of both time series and cross section data.
- To learn the art of building macro- and micro-econometric models.
- To know how to use macro- and micro-econometric models to contribute to planning and decision taking.
- To gain skills to manage econometric software.

#### 4. OBJECTIVES

To train students to understand, build and use macro- and micro-econometric models.

6. COURSE ORGANIZATION	
CONTENTS	
1	Microeconometrics
1.1	Binary response models. Linear probability model. Logit and Probit models: specification, estimation, hypothesis testing, goodness of fit, prediction and interpretation. Applications.
1.2	Multiple response models. Ordinal outcomes. Ordered logit and probit models: specification, estimation, hypothesis testing, goodness of fit, prediction and interpretation, the parallel regression assumption. Nominal outcomes. Multinomial and conditional logit models: independence of irrelevant alternatives.
2	Macroeconometrics
2.1	Time series regression. Stationary and non-stationary models. Spurious regressions. Unit root test. Cointegration. Error correction model. Applications.
2.2	Vector autoregressive models. VAR and VEC models: specification, estimation, diagnosis and uses. Testing for multivariate cointegration. Identification problem.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Microeconometrics	Laboratory evaluation	No	Yes	50,00
Macroeconometrics	Laboratory evaluation	No	Yes	50,00
TOTAL				100,00
Observations				
<p>The exam of each continuous assessment test will consist of developing an empirical application with R / RStudio and solving theoretical-practical questions about it.</p> <p>Each of the two continuous evaluation exams will be scored from 0 to 10. A minimum grade of 4 is required in each exam to calculate the arithmetic mean of the two grades. Under this requirement, the course is passed with a final grade equal to or greater than 5. Students who obtain a grade lower than 4 in a exam can retrieve it by doing to the corresponding exam of the ordinary call.</p> <p>The type of exam in the ordinary and extraordinary calls will be similar to those of the continuous evaluation. In each call there will be a Microeconometrics exam and a Macroeconometrics exam.</p> <p>Students who want to improve their continuous assessment grades can apply to the ordinary call without penalty, keeping the highest grade.</p> <p>Students who do not pass the subject in the ordinary call will be examined in the extraordinary call of the part in which they have had a grade lower than 4.</p> <p>In the event that the competent health and educational authorities indicate that the evaluation must be done online, each continuous evaluation or recovery exam will be divided into four 30-minute parts that, after consulting the class, can be carried out sequentially in one or more days .</p>				
Observations for part-time students				
<p>Although it is highly recommended to attend the theoretical and practical classes, attendance is not compulsory, so that part-time students can present themselves, if they wish, to continuous assessment controls (one or both).</p> <p>The evaluation method is identical to that described for full-time students and will be graded form 0 to 10.</p>				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

### BASIC

Stock, J.H., Watson, M.W. (2019) Introduction to Econometrics, 4th ed., Pearson Education.

Gallego, J.L. (2021) Apuntes de Econometría Aplicada. Departamento de Economía, Universidad de Cantabria (moodle.unican.es).