Universidad Rey Juan Carlos

TEACHING GUIDE

SUPERIOR ECONOMETRICS

GRADO EN ECONOMÍA (INGLÉS)

ACADEMIC YEAR 2026-27

Q2803011B UNIVERSIDAD REY JUAN CARLOS
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I.-Subject Identification	
Type	OPTATIVA
Teaching period	4 course, 1Q semester
Nº of credits	6
Language in wich the subject is taught	English

II.-Presentation

Goals:
This subject is a natural continuation of the subjects Econometrics I and II of the third year and is intended for students to master fundamental econometric tools for the applied analysis of economic phenomena. The objective is to study from both theoretical and applied perspectives, the econometric models and techniques necessary to be able to perform rigorous applied economic analysis. The student will be able to perform empirical analysis using econometric programs, mainly Gretl, and others.
Recommendations:
It is convenient to have completed and passed successfully the exams of the courses of Econometrics I and II and to master the basic concepts acquired in those subjects, since Advanced Econometrics is the natural extension of third-year Econometrics.
The Virtual Campus will be used as a teacher-student communication tool, therefore students are advised to acquire the required skills and check it regularly.

III.-Learning outcomes

CT01. Ability to analyse and synthesise
CT05. Knowledge of information systems relating to the field of study
CT06. Ability to analyse and search for information from different sources
CT07. Ability to solve problems
CT08. Ability to make decisions
CT09. Ability to work in a team
CT15. Ability to learn independently
CB02 . That students are able to apply their knowledge to their work or vocation in a professional manner and have the skills that are typically demonstrated through the preparation and defense of arguments and problem solving within their field of study.
CB03 . That students have the ability to gather and interpret relevant data (usually within their field of study) to express judgments that include a reflection on relevant topics related to social, scientific or ethical areas.
CB04 . That students are able to transmit information, ideas, problems and solutions to both specialized and non-specialized audience.
CB05 . That students have developed the learning skills needed to undertake further studies with a considerable degree of autonomy.
CE01. Ability to put knowledge of economics into practice
CE02. Information search and research skills
CE06. Ability to learn and apply the different qualitative techniques used in economics
CE07. Understanding and appraisal of economic contingencies
CE14. Ability to convert an empirical problem into an area of research and reach conclusions
CE19. Forecasting with different economic variables

- Key for degrees not adapted to RD 822/21: **CB** - basic competences, **CG** - generic competences, **CE** - specific competences, **CT** - transversal competences.
- Key for degrees adapted to RD 822/21: **CON** - knowledge, **COM** - competences, **HAB** - skills.

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IV.-Contents

IV.A.-Syllabus

Topic 1. Review of the Linear Regression Model.
Hypothesis. OLS estimator and properties (normality, linearity, heteroskedasticity, etc.). Dummy variables.
Topic 2. Time series analysis.
Properties of the economic time series. Trend and seasonality. Stochastic process and unit roots. Univariate modelling.
Topic 3. Other models.
Instrumental variables. Binary choice models: linear probability model, Probit and Logit.

IV.B.-Training activities

Type	Title
Theoretical sessions	Adequate material will be provided in the 'Aula Virtual' assigned to this course
Other activities	Preparation of the classes
Experimental and/or technological laboratories	Practical classes
Test and/or exams	Evaluation activities
Academic tutorials	Academic tutorials
Lectures	Adequate material will be provided in the 'Aula Virtual' assigned to this course
Other activities	Preparation of the evaluation activities
Resolution of exercises, problems, case studies	Case or applied exercises to be solved

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V.-Student workload	
Theoretical sessions	25
Resolution of exercises, problems, case studies, etc.	10
Practical sessions in experimental, technological and clinical laboratories, fieldwork, etc.	20
Tests and/or exams	5
Academic tutorials	40
Related activities: conferences, seminars, etc.	8
Preparation of theoretical sessions and self-study	30
Preparation of practical tasks, exercises, case studies, projects, etc.	30
Preparation for tests and/or exams	12
Total student workload	180

VI.-Methodology and academic programme

Type	Period	Content
Theoretical sessions	Week 1 to Week 5	Topic 1: standard class-room lectures
Practical sessions	Week 2 to Week 6	Topic 1: applied exercises with the econometric software
Tests and/or exams	Week 7 to Week 7	Topic 1: evaluation activities
Theoretical sessions	Week 7 to Week 11	Topic 2: standard class-room lectures
Practical sessions	Week 7 to Week 11	Topic 2: applied exercises with the econometric software
Theoretical sessions	Week 12 to Week 15	Topic 3: standard class-room lectures
Practical sessions	Week 12 to Week 15	Topic 3: applied exercises with the econometric software
Tests and/or exams	Week 14 to Week 14	Topics 2 and 3: evaluation activities
Resolution of exercises, problems, case studies	Week 8 to Week 15	Topics 1, 2 and 3: exercise solving

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VII.-Assessment methods

The general assessment method is continuous as established in the *Regulation for the Assessment of Learning Outcomes* of Rey Juan Carlos University.
All the assessment systems established in the degree report must be employed, except for those that have a minimum weight of 0%, which can be used by professors in the academic years they consider relevant. Each assessment system may be applied through one or more assessment activities, consistent with the system. No assessment activity can exceed individually 60% of the overall grade for the subject.
The sum of non re-evaluable activities cannot exceed 40% of the overall grade for the subject and, in general, should not have an established minimum grade (except for practical activities in which, strictly speaking, the conditions of the ordinary call cannot be reproduced in the extraordinary call).
Those students who do not manage to pass the subject in the ordinary call, or do not attend this first call, may attend the extraordinary call only for failed re-evaluable assessment activities.
The distribution and characteristics of the assessment activities are described below.

VII.A.-Description and weight of the assessment activities

There are three evaluation periods: ordinary, extraordinary, and anticipated.

For the ordinary evaluation period the final grade consists of:
1-. Two individual practical exercises to solve using the econometric program taught during the course: with a weighting of 50% of the final grade; to be carried out during the 6th to 8th week the first, and during the 12th to 15th week the second. This activity is re-evaluable for the extraordinary evaluation period with a minimum grade for no re-evaluation of 5 out of 10.
2-. Final exam to solve using the econometric program taught during the course; with a weighting of 50% of the final grade; to be carried out on the date officially published by the University. This activity is re-evaluable for the extraordinary evaluation period with a minimum grade for no re-evaluation of 5 out of 10.

For the extraordinary evaluation period the final grade consists of:
1-. An individual practical exercise to solve using the econometric program taught during the course: with a weighting of 50% of the final grade; to be carried out on the date officially published by the University.
2-. Final exam to solve using the econometric program taught during the course; with a weighting of 50% of the final grade; to be carried out on the date officially published by the University.

The anticipated evaluation period consists of an evaluation activity composed of several practical exercises to develop and/or solve using the econometric program taught during the course, to be carried out on the date officially published by the University.

VII.B. Assessment of students with academic exemption from class attendance

Having Academic Exemption from Class Attendance (DAAC) does not imply that students are automatically exempt from participating in the continuous assessment activities or in the training activities of compulsory attendance as established in the teaching guide. Once the exemption has been granted, students must contact the subject's teaching staff, who will propose the adaptations he/she may consider relevant, as long as they guarantee the acquisition and adequate assessment of the learning goals established. Students must maintain adequate communication with the teaching staff so that they may provide information on the dates for training and assessment activities, if these are not established in the programme and available for students at the time of achieving the exemption.
Subject with possibility of academic exemption: No.

VII.C. Review of assessment activities

In accordance with the Regulation for the Assessment of Learning Outcomes of Rey Juan Carlos University.

VII.D.-Students with a disability or special educational needs

In order to guarantee equal opportunities, non-discrimination, universal accessibility and academic success, students with disabilities or especial education needs may request curricular adaptations to follow their studies. These adaptations will be provided by the Unit of Attention to People with Disabilities of Rey Juan Carlos University, in accordance with the regulation which regulates the service for the Attention of People with Disabilities at the University. This Unit will issue a report for curricular adaptations, so that students with disabilities or special education needs must contact the service (at e-mail discapacidad.programa@urjc.es) in order to provide relevant information for different educational alternatives.

VII.E.-Academic behaviour, academic integrity and honesty

Rey Juan Carlos University is fully committed to the highest standards of academic integrity and honesty, so studying at the URJC means assuming and subscribing to the values of integrity and academic honesty set out in the University's Ethical Code. To support this process, the University has Rey Juan Carlos University's Academic Conduct Regulation as well as different tools (anti-plagiarism, supervision...) that offer a collective guarantee for the full development of these essential values.

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VIII.-Teaching resources and materials
Basic bibliography
Econometrics, (2010) Authors: Gujarati, D. y Porter, D. Editorial: Mc Graw-Hill
Introductory Econometrics. A modern approach (2ª edition), (2006) Author: Wooldridge, J.M. l: Thomson-Learning
Consultation bibliography
Any econometrics text that the student is familiar with.

IX.-Professors	
Name and surname	OURANIA DIMAKOU
E-mail address	ourania.dimakou@urjc.es
Department	Economía de la Empresa (ADO), Economía Aplicada II y Fundamentos Análisis Económico
Campus	Madrid - Quintana
Category	Profesor/a Permanente Laboral
Academic degree	Doctor
Person responsible for the subject	No
Tutorial timetable	Para consultar las tutorias póngase en contacto con el/la profesor/a a través de correo electrónico
Number of quinquennia	2
Number of sexennia	1
No. of positive evaluations by Docentia	1

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