



## 1. General information

Course: APPLIED ECONOMETRICS

Type: ELECTIVE

Degree: 316 - UNDERGRADUATE DEGREE IN ECONOMICS

Center: 5 - FACULTY OF ECONOMICS AND BUSINESS

Year: 4

Main language: Spanish

Use of additional languages:

Web site:

Code: 53342

ECTS credits: 4.5

Academic year: 2023-24

Group(s): 10

Duration: First semester

Second language: English

English Friendly: Y

Bilingual: N

Lecturer: NURIA HUETE ALCOCER - Group(s): 10

Building/Office	Department	Phone number	Email	Office hours
Facultad de Ciencias Económicas y Empresariales de Albacete. Despacho 1.08	ECO. ESP. E INT. ECONOMET. E Hª E INS. EC	926053550	nuria.huete@uclm.es	

## 2. Pre-Requisites

It is recommended to have passed the disciplines of Statistics and Mathematics. Also have completed the previous subject of Introduction to Econometrics.

## 3. Justification in the curriculum, relation to other subjects and to the profession

The subject of Applied Econometrics is part of the fourth year of the Degree in Economics, within the module of analytical foundations and quantitative methods, is taught in the first semester after having taken the subjects of the discipline of Econometrics, in third year.

It is an instrumental basic subject in Applied Economics.

As for its relationship with other subjects, it is a complementary support for other Econometrics subjects such as Introduction to Econometrics and / or Econometric Methods and Models. It is closely linked to subjects of the same level of Economic Theory or Spanish as

In the profession of economist is framed within the applied or quantitative disciplines that will provide implementing tools and modeling for comprehensive economic analysis in local, national and international spaces, as well as its link to information and communication.

## 4. Degree competences achieved in this course

## Course competences

Code	Description
E03	Ability to find economic data and select relevant facts.
E04	Analytical skills to identify and anticipate relevant economic and legal issues and the different alternative solutions.
E05	Ability to contribute to the establishment of strategies which will allow for the efficient allocation of resources, the generation of wealth and a suitable distribution of income.
E06	Application of professional criteria to the analysis of problems, based on the use of technical tools.
E11	Diagnosis and assessment skills to conduct structural and cyclical reports, as well as economic forecast summaries on the reality of the economy in Spain, the European Union and in any of the product sectors and factor markets. To do so, it will be necessary to understand and use common handbooks, as well as articles and, in general, leading edge bibliography in the core subjects of the curriculum.
G01	Possession of the skills needed for continuous, self-led, independent learning, which will allow students to develop the learning abilities needed to undertake further study with a high degree of independence.
G03	Develop oral and written communication skills in order to prepare reports, research projects and business projects and defend them before any commission or group of professionals (specialised or non-specialised) in more than one language, by collecting relevant evidence and interpreting it appropriately so as to reach conclusions.
G04	Ability for the use and development of information and communication technology in the development of professional activity.
G05	Capacity for teamwork, to lead, direct, plan and supervise multidisciplinary and multicultural teams in both national and international environments.

## 5. Objectives or Learning Outcomes

## Course learning outcomes

## Description

Train the student to work out problems in creative and innovative ways.

To know the tools and methods for quantitative analysis of markets, sectors and companies, including models for decision-making and economic forecasting models.

Know the models of econometric systems as a set of processes, where variables, mathematical relationships, decision makers, financial resources, etc.; related in a permanent communication of information.

Be able to identify analytical models and techniques of the economic, legal and social environment and their historical development

Train the student to listen to and defend arguments orally or in writing

## Additional outcomes

Train the student for the treatment of statistical information systems (data Banks and sources) with the fundamental objective of both cyclical and structural forecasting.

Train the student to apply quantitative methods to support decision-making in an environment of uncertainty.

## 6. Units / Contents

## Unit 1: Modeling applied

Unit 1.1 Design of Multi-equation Models

Unit 1.2 Tools: Information Systems

Unit 1.3 Structural Equations

## Unit 2: Regional Models

Unit 2.1 Approaches

Unit 2.2 Uni and multi-regional Models

Unit 2.3 Castilla La Mancha Region Model

## Unit 3: National Model

Unit 3.1 Approaches

Unit 3.2 International and national models

## Unit 4: Sectoral Models

Unit 4.1 Approaches

Unit 4.2 Panel Data Models

Unit 4.3 Management Information Systems: simulation

## 7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	E04 E05 E06 G01 G04		0.9	22.5	Y	N
Class Attendance (practical) [ON-SITE]	Cooperative / Collaborative Learning	E03 E06 G01 G03 G04		0.44	11	Y	N
Computer room practice [ON-SITE]	Project/Problem Based Learning (PBL)	E03 E06 G01 G04		0.16	4	Y	N
Writing of reports or projects [OFF-SITE]	Group Work	E03 E04 E05 E06 E11 G01 G03 G04 G05		1.2	30	Y	N
Writing of reports or projects [OFF-SITE]	Case Studies	E04 E05 E06 E11 G01 G05		0.88	22	Y	N
Study and Exam Preparation [OFF-SITE]	Combination of methods	E03 E04 E05 E06 E11 G01 G03		0.88	22	Y	N
Final test [ON-SITE]	Assessment tests	E04 E06 E11 G01 G03		0.04	1	Y	Y
Total:			4.5	112.5			
Total credits of in-class work: 1.54							Total class time hours: 38.5
Total credits of out of class work: 2.96							Total hours of out of class work: 74

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

## 8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Self Evaluation and Co-evaluation	10.00%	0.00%	Oral presentation of group work.
Assessment of problem solving and/or case studies	10.00%	0.00%	Individual work. Participation and positive result of the practical sessions, seminars, tutorials, ... It requires a minimum of participation (face-to-face and not face-to-face via Moodle platform) and realization of the cases raised.
Final test	50.00%	100.00%	Final objective test divided into two blocks: theoretical and practical that have to be balanced out.
Theoretical papers assessment	30.00%	0.00%	Attention will be paid not only to the contents, but also to the correct use of the scientific forms and to the oral presentation that will be obligatory.
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

## Evaluation criteria for the final exam:

Continuous assessment:

The evaluation is based on a continuous system in which the effort and progress of the student in the development of a series of competences is valued.  
Individual work through cases for delivery according to the established legal calendar. The participation and positive result of the practical sessions, seminars, tutorials will be valued.  
Group work: in the evaluation of this work attention will be paid not only to the content, but to the correct use of scientific forms and oral presentation.

Final test, through the development of two blocks: simple theoretical questions and practical exercises.

**Non-continuous evaluation:**

A specific exercise of each module of the syllabus will be applied for the evaluation of the student, in a single test with the possibility of reaching 100% of the final grade. See section b of point 4.2. of the UCLM Student Regulations approved on May 23, 2022.

**Specifications for the resit/retake exam:**

Must have delivered the group work (theoretical work) and made the exhibition of them.

**Specifications for the second resit / retake exam:**

Must have delivered the group work (theoretical work) and made the exhibition of them.

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
<b>Hours</b>	<b>hours</b>
Writing of reports or projects [AUTÓNOMA][Group Work]	5
Final test [PRESENCIAL][Assessment tests]	1
<b>Unit 1 (de 4): Modeling applied</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Class Attendance (practical) [PRESENCIAL][Cooperative / Collaborative Learning]	2
Computer room practice [PRESENCIAL][Project/Problem Based Learning (PBL)]	2
Writing of reports or projects [AUTÓNOMA][Group Work]	10
Writing of reports or projects [AUTÓNOMA][Case Studies]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	6
Group 10:	
<b>Initial date:</b> 12-09-2022	<b>End date:</b> 09-10-2022
<b>Unit 2 (de 4): Regional Models</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Class Attendance (practical) [PRESENCIAL][Cooperative / Collaborative Learning]	3
Computer room practice [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Writing of reports or projects [AUTÓNOMA][Group Work]	5
Writing of reports or projects [AUTÓNOMA][Case Studies]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	5
Group 10:	
<b>Initial date:</b> 10-10-2022	<b>End date:</b> 30-10-2022
<b>Unit 3 (de 4): National Model</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Class Attendance (practical) [PRESENCIAL][Cooperative / Collaborative Learning]	2
Computer room practice [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Writing of reports or projects [AUTÓNOMA][Group Work]	5
Writing of reports or projects [AUTÓNOMA][Case Studies]	6
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	4
Group 10:	
<b>Initial date:</b> 31-10-2022	<b>End date:</b> 20-11-2022
<b>Unit 4 (de 4): Sectoral Models</b>	
<b>Activities</b>	<b>Hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	8.5
Class Attendance (practical) [PRESENCIAL][Cooperative / Collaborative Learning]	4
Writing of reports or projects [AUTÓNOMA][Group Work]	5
Writing of reports or projects [AUTÓNOMA][Case Studies]	4
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	7
Group 10:	
<b>Initial date:</b> 21-11-2022	<b>End date:</b> 21-12-2022
<b>Global activity</b>	
<b>Activities</b>	<b>hours</b>
Class Attendance (theory) [PRESENCIAL][Lectures]	22.5
Class Attendance (practical) [PRESENCIAL][Cooperative / Collaborative Learning]	11
Computer room practice [PRESENCIAL][Project/Problem Based Learning (PBL)]	4
Writing of reports or projects [AUTÓNOMA][Group Work]	30
Study and Exam Preparation [AUTÓNOMA][Combination of methods]	22
Final test [PRESENCIAL][Assessment tests]	1
Writing of reports or projects [AUTÓNOMA][Case Studies]	22
<b>Total horas:</b> 112.5	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Cítr	ISBN	Year	Description
Baños, Lopez, Nevado, y Sanz	Estrategias de desarrollo local para los municipios de Casti	Popular Libros		84-93424-12-9	2005	
Victor Raúl López Ruiz et al	Economía del conocimiento en las ciudades de Castilla La Mancha	altaban	Albacete	9788415252283	2016	
Baltagi, Badi H. (Badi Hani)	A Companion to econometric analysis of panel data	John Wiley & Sons		978-0-470-74403-1	2009	
Batista Foguet, J. M. y Coenders Gallart, G.	Modelos de ecuaciones estructurales: (modelos para el análisis de relaciones causales)	La Muralla	Madrid	978-84-7133-694-1	2012	
Granger, Clive William John (1934-)	Essays in econometrics : collected papers of Clive W.J. Gran	Cambridge University Press		0-521-79697-0 (Pbk.	2001	
Greene, William H. (1951-)	Econometric analysis	Prentice Hall		978-0-13-513245-6	2008	
Gujarati, Damodar N.	Econometría	McGraw-Hill Interamericana		970-10-3971-8	2004	
Maddala, G. S.	Econometría	McGraw-Hill		9684516754	1988	
Nevado Peña, Domingo y Lopez Ruiz, Victor	El capital intelectual : valoración y medición : modelos,	Prentice Hall Iberia		84-205-3067-0	2002	
Pulido San Román, Antonio	Modelos econométricos	Pirámide		84-368-1534-3	2001	
Pérez López, César	Econometría avanzada : técnicas y herramientas	Pearson Educacion		978-84-8322-479-3	2008	