

TEACHING GUIDE
STATISTICS II

GRADO EN ECONOMÍA (INGLÉS)

ACADEMIC YEAR 2023-24

Date: 07-07-2023

I.-Subject Identification	
Type	OBLIGATORIA
Teaching period	1 course, 2Q semester
Nº of credits	4.5
Language in wich the subject is taught	English

II.-Presentation
<p>The core of the Statistical II topic is Inferential Statistics. Inferential Statistics refers to generalization from a sample to a population, estimating unknown population parameters, drawing conclusions, and making decisions.</p> <p>Previous statistical knowledge of the Statistical I topic level is strongly advisable</p> <p>The assumed level of mathematics is pre-calculus (basic derivation and integration) and elementary algebra.</p> <p>Excel is used because of its wide availability. Other statistical software will be applied.</p> <p>Identification of economic data sources and their information content</p>

III.-Competences
Generic competences
<p>CT07. Ability to solve problems</p> <p>CT08. Ability to make decisions</p> <p>CT10. Interdisciplinary teamwork</p> <p>CT15. Ability to learn independently</p> <p>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.</p> <p>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.</p> <p>CB05 . That students have developed the learning skills needed to undertake further studies with a considerable degree of autonomy.</p>
Specific competences
<p>CE06. Ability to learn and apply the different qualitative techniques used in economics</p> <p>CE14. Ability to convert an empirical problem into an area of research and reach conclusions</p>

IV.-Contents		
IV.A.-Syllabus		
Thematic unit	Topic	Sections
I.- Estimation	Topic 1.	Samplings: distributions. Inference
	Topic 2.	Sufficiency
	Topic 3.	Point estimation
	Topic 4.	Estimation Methods
	Topic 5.	Confidence Intervals
II.- Hypotheses test	Topic 6.	Hypotheses Tests
	Topic 7.	Signification Tests
	Topic 8.	Parametric Tests
	Topic 9.	Non-parametric tests

IV.B.-Training activities	
Type	Title
Practical / resolution of exercises	Solving problems proposed during the semester

V.-Student workload		
Lecture classes	20	
Practical classes/resolution of exercises, case studies, etc.	20	
Practical sessions in technological laboratories, hospitals, etc.	0	
Tests	5	
Academic tutorials	8.5	
Related activities: conferences, seminars, etc.	5	
Preparation of lecture classes	20	
Preparation of practices, exercises, cases studies work	40	
Test preparation	16.5	
Total student workload	135	
VI.-Methodology and academic programme		
Type	Period	Content
Master classes	Week 1 to Week 6	Estimation.
Master classes	Week 6 to Week 13	Hypothesis testing.
Work placements	Week 1 to Week 6	Estimation.
Work placements	Week 6 to Week 14	Hypothesis testing.

VII.-Assessment methods

VII.A.-Assessment weighting

Continuous ordinary assessment:

The distribution and characteristics of the assessment tests are those described below. Only in exceptional case and for special reasons may the teacher add changes to the Guide. These changes will require the prior consultation with the Subject Head and the prior and explicit authorisation of the Degree Programme Coordinator, who will notify the Vice-Rector's office in charge of Academic Affairs of the modifications made. In any case, the changes proposed must take into account the stipulations of the verified report. In order for these changes to take effect, they must be duly communicated at the start of the course to the students using Aula Virtual.

The combination of activities that are not re-assessable cannot exceed 50% of the subject grade and, in general, cannot have a minimum grade (except for the case of laboratory or clinical work placements, where duly justified), and tests which exceed 60% of the subject weighting cannot be added.

Extraordinary assessment: Students who do not manage to pass the ordinary assessment, or who did not attend, will be subject to completion of an extraordinary assessment to verify their acquisition of the skills established in the guide, only for activities that are re-assessable.

Description of the tests for assessment and their weights.

The ORDINARY EVALUATION of the subject will be conducted through two face-to-face tests (the Teaching Adaptation Protocol of the URJC establishes that "the evaluation activities will preferably carry out in person, as long as the sanitary conditions allow it"), on the date determined by the university.

1. Theoretical-practical test (40% of the score): 8 questions (Correct: +0.5; incorrect: -0.1; blank: 0). Reassess the extraordinary call in June / July.

It will be necessary to answer correctly at least 3 of the 8 questions proposed, otherwise, the practical test will not be marked, so the grade will be obtained only in the theoretical part.

The maximum mark in this part will be 4.

2. Practical part (60% of the score): 3 problems to develop (approach and resolution) (with a maximum score of 2 points each). Re-evaluable in extraordinary call of June / July.

The maximum mark in this part will be 6.

MINIMUM MARK: to pass, it will be necessary that the sum of the marks of both tests (theoretical-practical test + practical part) is at least a 5 out of 10. If not, the students will have to take the two tests (the theoretical-practical test and the practical part of problems) in the extraordinary session in June / July.

The REEVALUATION IN THE EXTRAORDINARY CALL OF June / July of these two tests will be developed with the same characteristics as the ordinary evaluation (weights, structure, and criteria).

The dates for the ordinary evaluation and the extraordinary call for June / July are official and published on the web sufficiently in advance, not being possible for modification or adaptation. The same criteria apply to exam reviews.

VII.B. Assessment of students with an academic exemption

Student who wish to opt for this assessment will have to get an academic exemption for the subject, which they will have to request from the Dean or Director of the Centre which teaches their course. An academic exemption may be granted where the subjects own characteristics allow for it.

Subject with the possibility of an exemption: Yes

VII.C. Review of assessment tests

In accordance with the exam appeal regulations of the Universidad Rey Juan Carlos.

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

Curricular adaptations for students with a disability or special educational needs will be determined by the Disabled Students Support Department, in accordance with the regulations governing the Disabled Students Support service, approved by the Universidad Rey Juan Carlos Council, in order to guarantee equal opportunities, inclusive treatment, universal accessibility and a greater guarantee of academic success.

For this purpose, this Department will have to issue a curricular adaptation report, therefore students with disabilities or special educational needs must contact the Department to analyse the different alternatives together.

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

The Universidad Rey Juan Carlos is completely committed to the highest standards of academic integrity and honesty. Therefore, studying at the URJC means you accept and agree to the academic integrity and honesty values described in the University's Code of Ethics. In order to monitor this procedure, the University has Regulations on academic behaviour at the Universidad Rey Juan Carlos and uses different tools (anti-plagiarism, supervision?) which provides a collective assurance that these essential values are completely developed

VII.-Bibliography
Reference Generic
Title: Statistics for Business and Economics (9Th. Ed.) Author: Newbold, P., Carlson, W.L. and Thorne, B. Publisher: Pearson _____
Reference literature
Title: Introduction to Mathematical Statistics Author: Robert V. Hogg, Craig, Allen T. and McKean Joseph W. Publisher: Prentice-Hall
Title: Probability Theory and Statistical Inference Author: Aris Spanos Publisher: Cambridge University Press

IX.-Lecturers/Teachers/Professors	
Lecturer/teacher/professor´s name	MIGUEL ALVAREZ GARCIA
E-mail address	miguel.alvarez@urjc.es
Department/field	Economía Aplicada I e Historia e Instituciones Económicas
Category	Profesor/a Asociado/a
Subject Coordinator	No
Academic tutorial timetable	Para consultar las tutorias póngase en contacto con el/la profesor/-a a través de correo electrónico
Nº of Quinquenios	0
Nº of Sexenio	0
Nº period for technology transfer	0
Stretch Docentia	0