

TEACHING GUIDE

CORPORATE STATISTICS I

**GRADO EN ADMINISTRACIÓN Y DIRECCIÓN DE EMPRESAS
(INGLÉS)**

ACADEMIC YEAR 2026-27

Publication date: 01-07-2026



I.-Subject Identification

Type	OBLIGATORIA
Teaching period	2 course, 1Q semester
Nº of credits	6
Language in wich the subject is taught	English

II.-Presentation

The main objective of Business Statistics I is to provide students with a solid understanding of the fundamental statistical techniques for data analysis, covering Descriptive Statistics and Probability Theory in business and economic contexts. The course combines a theoretical understanding of methods and their assumptions with practical applications, enabling students to interpret and analyse real data effectively. This foundation will allow students to address Statistical Inference in subsequent courses. The assumed mathematics level is basic calculus and algebra. Excel is used as the primary software tool; other statistical packages such as R may also be applied.

III.-Learning outcomes

CI01. Ability to analyse and synthesise: analysis, synthesis, evaluation and decision-making based on relevant information records on the company's position and potential growth.
 CI06. Ability to analyse, search for and interpret information from different sources: ability to identify sources of relevant economic data, obtain and select information that non-professionals are not capable of recognising
 CPR01. Practical application of knowledge.
 CP21 . Ability to apply language and mathematical / statistical logic in the approach of an economic - business problem
 CE11. Knowledge support necessary for the proper realization of learning and prior knowledge, especially Statistics
 CP04. Ability to use tools of quantitative nature in the capture of managerial decisions

- 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.



IV.-Contents

IV.A.-Syllabus

Thematic unit	Topic
I.- Descriptive Statistics	Topic 1. One-dimensional statistical analysis
	Topic 2. Two-dimensional statistical analysis. Correlation and regression
	Topic 3. Index numbers
II.- Probability	Topic 4. Probability theory. General aspects
	Topic 5. One- dimensional random variables
	Topic 6. Probability distributions characteristics
	Topic 7. Discrete and continuous probability distributions
	Topic 8. Convergency

IV.B.-Training activities

Type	Title
Test and/or exams	Exams
Other activities	Academic tutoring
Theoretical sessions	Theoretical- practical classes
Resolution of exercises, problems, case studies	Practical classes



V.-Student workload	
Theoretical sessions	32
Resolution of exercises, problems, case studies, etc.	26
Practical sessions in experimental, technological and clinical laboratories, fieldwork, etc.	0
Tests and/or exams	2
Academic tutorials	45
Related activities: conferences, seminars, etc.	3
Preparation of theoretical sessions and self-study	30
Preparation of practical tasks, exercises, case studies, projects, etc.	25
Preparation for tests and/or exams	17
Total student workload	180

VI.-Methodology and academic programme		
Type	Period	Content
Academic tutorials	Week 1 to Week 15	Resolution of doubts and orientation.
Practical sessions	Week 1 to Week 15	Problem-solving. Complement the theoretical aspects with practical problems that show your application in common situations of the economic and business field.
Theoretical sessions	Week 1 to Week 15	Master lesson. Presentation and explanation of the basic theoretical aspects included in the course contents.



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

Ordinary Assessment

Exam Week 5: Descriptive statistics Basic Concepts

- **Weight:** 15% of the final grade
- **Content:** Assesses students' understanding of fundamental descriptive statistics concepts covered in the first part of the course.
- **Format:** May include multiple-choice questions, short-answer problems, and/or practical estimation exercises.
- **Reassessment:** Non-reassessable; no retake will be offered. This exam forms part of a continuous assessment process designed to support methodological learning and ongoing student development.
- **Note:** The exam is scheduled for week 5 but may be postponed by up to one week at the professor's discretion.

Exam Week 13: Probability theory Basic Concepts

- **Weight:** 25% of the final grade
- **Content:** Focuses on the core principles of probability theory as discussed in class.
- **Format:** May include theoretical questions, practical applications, and/or interpretation of statistical results.
- **Reassessment:** Non-reassessable; no retake will be offered. This exam forms part of a continuous assessment process designed to support methodological learning and ongoing student development
- **Note:** The exam is scheduled for week 13 but may be postponed by up to one week at the professor's discretion.

Final Exam: January (in the official exam date as published by the university, in-person)

- **Weight:** 60% of the final grade
- **Content:** Comprehensive, covering all course topics, including descriptive statistics and probability theory, and any additional material discussed throughout the semester.
- **Format:** May consist of a combination of multiple-choice questions, problem-solving exercises, and/or essay-style questions.
- **Reassessment:** Reassessable. Students who do not pass their grade may retake the final exam during the official extraordinary assessment period in June.

Extraordinary Assessment

Only the third exam is eligible for reassessment in the extraordinary session. It may consist of a combination of multiple-choice questions, problem-solving exercises, and/or essay-style questions. This exam will take place in-person, on the official date as set by the university, and carries a weight of 60% of the final grade. The first and second exams cannot be retaken, as they form part of a continuous assessment process designed to support methodological learning and ongoing student development.

Early Exam Session

The assessment in the Early Exam Session will consist of a single in-person exam covering 100% of the course content, held on the date specified in the university's official exam schedule. This exam replaces all other assessment activities; no grades from midterm exams or any other activities carried out during the academic year are retained or considered. A score of 5 out of 10 or higher is required to pass.

Additional Notes

- **Passing Grade:** A final score of 5 out of 10 or higher is required to pass the course in any of the assessments.
- **Minimum Mark Requirement:** There is no minimum numerical threshold required in any individual midterm exam for scores to be combined into the final grade. The final exam and the extraordinary exam require an overall score of 4 out of 10 to pass the course. This criterion is intended to ensure that all core competences of the course are adequately acquired, and not merely compensated by performance in other areas. Students will be informed of this criterion at the beginning of the course.
- **Exam Delays:** Exams 1 and 2 may be delayed by up to one week if deemed necessary by the professor. Any changes to the



schedule will be communicated in advance.

•**Non-reassessable Exams:** Only the final exam is reassessable. The midterm exams (weeks 5 and 13) cannot be retaken or reassessed, as they form part of a continuous assessment process designed to support methodological learning and ongoing student development. However, although they are non-reassessable, **the content covered in those exams (descriptive statistics and basic probability concepts) may still be assessed in the final and extraordinary exams**, as the acquisition of all course competences is required to pass the subject.

•**Grade Calculation:** The final grade will be calculated as the weighted sum of the three assessments as described above.

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: Yes.

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.



VIII.-Teaching resources and materials

Basic bibliography

Title: Statistics for Business and Economics (10th Ed.) Authors: Newbold, P., Carlson, W.L. and Thorne, B. Publisher: Pearson.
Title: Statistics for Business and Economics (13th Ed.). Authors: McClave, James T. Publisher: Pearson Education.

Consultation bibliography

TITULO: Introducción a la Estadística Económica y Empresarial. Teoría y Práctica. 3a edición (2004). AUTOR/ES: Martín-Pliego López, F.J. Ed. AC (Grupo Paraninfo). ISBN: 9788497323161
TITULO: Fundamentos de Probabilidad. 3a ed. (2009). AUTOR/ES: Martín-Pliego López, F.J y Ruiz-Maya Pérez, L. Ed. AC (Grupo Paraninfo). ISBN: 9788497328173
TITULO: Problemas de Probabilidad. 3a edición (2006). AUTOR/ES: Martín-Pliego López, F.J, Montero Lorenzo, J.M. y Ruiz-Maya Pérez, L. Ed. AC (Grupo Paraninfo). ISBN: 9788497325011

IX.-Professors

Name and surname	DAVID MORENO VINCENT
E-mail address	david.moreno.vincent@urjc.es
Department	Economía Aplicada I e Historia e Instituciones Económicas
Campus	Madrid - Vicálvaro
Category	Profesor/a Asociado/a
Person responsible for the subject	Yes
Tutorial timetable	Para consultar las tutorías póngase en contacto con el/la profesor/a a través de correo electrónico
Number of quinquennia	0
Number of sexennia	0
No. of positive evaluations by Docencia	0