



Faculty Business and Tourism

GENERAL SPECIFICATIONS

ACADEMIC YEAR 2025-2026

Subject Data

Name:

Estadística y Métodos Cuantitativos I

English name:

Statistics and Quantitative Methods I

Code:

858510106/ 858610106/ 859110106/ 859010106/
909517108/ 1210310

Type:

Basic

Hours:

	Total	In class	Out class
Time distribution	150	60	90

ECTS:

Standard group	Small groups			
	Classroom	Lab	Practices	Computer classroom
4.8				1.2

Departments:

Economics

Knowledge areas:

Quantitative methods for economics and business

Year:

1st

Semester

Second

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TEACHING STAFF

Name:	E-mail:	Telephone
Encarnación Cordon Lagares (coordinadora)	ecordon@dehie.uhu.es	+34 959 217 859
Ana González Galán	ana.gonzalez@dehie.uhu.es	+34 959 218 484

Others Data (Tutoring, schedule...)

Group	Day and time	Dates
	Tuesday and Thursday, from 17:30 to 19:30	Large (48 hours) and small (12 hours) groups dates and timetable available on the Moodle site for the course

Prof.: Dr. Encarnación Cordon Lagares

Department: Economics

Office: 62 (Faculty of Business Science and Tourism)

Office hours:

First semester				
Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-12:00	9:00-12:00		
Second semester				
Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-12:00		9:00-12:00	

Prof.: Dr. Ana González Galán

Department: Economics

Office: 61 (Faculty of Business Science and Tourism)

Office hours:

First semester				
Monday	Tuesday	Wednesday	Thursday	Friday
	9:30-12:30		9:30-12:30	
Second semester				
Monday	Tuesday	Wednesday	Thursday	Friday
	9:30-12:30		9:30-12:30	

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SPECIFIC INFORMATION OF THE COURSE

I. Contents description:

I.1 In English:

Descriptive Statistics, Probability Theory, and Probability Distributions.

I.2 In Spanish:

Estadística descriptiva, Teoría de la Probabilidad y Distribuciones de Probabilidad.

2. Background:

2.1 Situation within the Degree:

This course is part of the "Statistics" subject area within the Business Administration and Management degree. It provides essential knowledge to support the application of statistical methodology in advanced courses, including the follow-up course "Statistics and Quantitative Methods II."

2.2 Recommendations

No prerequisites. Basic knowledge of Algebra and Mathematical Analysis is recommended.

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3. Objectives (as result of teaching, or skills or abilities and knowledge):

General Objectives:

- Introduce students to descriptive statistical techniques for economic-business applications.
- Foster critical thinking regarding the use of statistical sources and tools.

Specific Objectives:

- Provide basic knowledge in Descriptive Statistics and Probability Theory.
- Apply statistical techniques in economic and business contexts.
- Integrate IT tools and statistical software into data analysis processes.

4. Skills to be acquired

4.1 Specific Skills:

(SK12): Ability to design, draft, implement, and manage projects and reports; and to provide advice on specific business situations.

(SK3): Knowledge of mathematical and statistical techniques and tools applied to the business and economic field.

4.2 General, Basic or Transversal Skills:

(BS1) Demonstrate to understand and have acquired knowledge about an area of study that starts from basic Secondary Education, and is often at supported by advanced textbooks, but also includes some aspects that involve knowledge related to the forefront of their field of study.

(BS2) Know how to apply their knowledge to their work or vocation in a professional way. They should also possess the skills that are usually demonstrated through the elaboration and defence of arguments and in problem solving within their area of study.

(BS3) Gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.

(BS4) Be able to convey information, ideas, problems and solutions to both specialised and non-specialised audiences.

(BS5) Develop the learning skills required to undertake further studies with a high degree of autonomy.

(GS1) Develop cognitive, instrumental and attitudinal competences in the context of Administration and Business management.

(TS1) Be completely fluent in Spanish, mastering the different styles and the specific languages required to develop and communicate the acquired knowledge in the scientific and academic environment.

(TS2) Develop a critical attitude, being able to analyse and synthesize.

(TS3) Develop an attitude of inquiry that permanently enables to review and deepen in the knowledge.

(TS4) Acquire Computer and Information Skills (CI2) and apply them working.

(TS6) To promote, respect and safeguard human rights, democratic values, social equality and environmental sustainability, without discrimination on the basis of birth, race, sex, religion, opinion or other personal or social circumstances.

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5. Training Activities and Teaching Methods

5.1 Training Activities:

- Theoretical and practical classroom sessions.
- Supervised activities by lecturers: seminars, workshops, development of assignments, debates, group tutorials, evaluations.
- Autonomous work of the student.

5.2 Teaching Methods::

- Face-to-face theoretical classes.
- Face-to-face practical classes.
- Autonomous supervised work of the student.
- Assessment tests.
- Tutorials.

5.3 Development and Justification:

All relevant materials for the theoretical and practical sessions will be available on the Moodle platform (<https://moodle.uhu.es/>). Theoretical content is complemented by practical problem-solving and statistical software exercises. Additional activities may include multimedia analysis, reports, and group work in a problem-based learning framework.

6. Detailed Contents

Block I: Deterministic Statistical Techniques

1. Basic Concepts of Descriptive Statistics
2. Univariate Descriptive Statistical Analysis
3. Bivariate Descriptive Statistics
4. Time Series Analysis
5. Index Numbers

Block II: Probabilistic Models

6. Concept of Probability
7. Random Variables
8. Discrete Probability Models
9. Continuous Probability Models

7. Bibliography**7.1 Basic Bibliography:**

- Newbold, P., Carlson, W. L., & Thorne, B. (2022). *Statistics for business and economics* (Global ed., 10th ed.). Pearson.
- McClave, J. T., Benson, P. G., & Sincich, T. (2005). *Statistics for business and economics* (9th ed.). Pearson Prentice Hall.
- Mariappan, P. (2019). *Statistics for business*. Alpha Science International Ltd.
- Bajpai, N. (2009). *Business statistics*. Pearson Education India.
- Sharma, J. K. (2006). *Business statistics*. Pearson Education.

7.2 Additional Bibliography:

- McEvoy, D. M. (2018). *A guide to business statistics*. W. W. Norton & Company.
- John, J. A., Whitaker, D., & Johnson, D. G. (2018). *Statistical thinking in business*. Wiley.
- Jones, J.S. & Goldring, J. (2022). *Explotatory and descriptive statistics*. SAGE Publications

8. Systems and Assessment Criteria

8.1 System for Assessment:

- Final written/oral exams
- Continuous assessment (theoretical, practical, software-based, participation)

8.2 Assessment Criteria and Marks:

8.2.1 Examinations Convocatory I

Continuous assessment is the default option and if the student wants a single final assessment, he or she must inform the teacher. Continuous assessment for this course will be divided into three components: the theoretical part, the practical part related to problem-solving, and the practical part involving the use of statistical software.

Written test on theoretical content: This written test will assess students' knowledge of the methodologies covered in the large-group theoretical sessions. Assessment criteria will include the correct use of concepts and terminology, the ability to interrelate theories, models and concepts, the clarity and accuracy of responses, and the level of understanding of the theoretical foundations taught during the large-group sessions. This component will account for 30% of the final grade.

Written test on practical content: This written test will assess students' ability to solve practical cases and to present their solutions in the form of a written report, based on the knowledge acquired in the large-group sessions. Assessment criteria will include: the ability to solve problems and apply theoretical content to practical situations, the development of synthesis skills, internal coherence of the work and its consistency with the overall knowledge acquired, and the clarity and precision of the answers. This component will account for 50% of the final grade.

Continuous evaluation through computer lab activities: Students will be required to complete theoretical-practical tasks during computer lab sessions, based on specific case studies and using specialised software. Assessment criteria will include: correct interpretation of the practical case, appropriate choice of statistical and/or econometric technique, accurate resolution of the case using the computer, and appropriate presentation of the results obtained. This component will account for 20% of the final grade.

The set of assessment activities shall be governed by the Assessment Policy for undergraduate and postgraduate degrees at the University of Huelva, as approved by the Governing Council on 13 March 2019: https://www.uhu.es/fexp/archivos/normativa/REGLAMENTO_DE_EVALUACION_aprobado_en_CG13_de_marzo_2019.pdf

Grading system

The grading system used in this course is in accordance with Article 5 of Royal Decree 1125/2003 of 5 September, which establishes the European Credit Transfer and Accumulation System (ECTS) and the grading scale for official university degrees, and is applicable throughout Spain. Students' performance in each course unit will be graded using a numerical scale from 0 to 10, with one decimal place, to which a corresponding qualitative grade may be added:

- 0.0 to 4.9: D. Fail (Suspenso)

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- 5.0 to 6.9: Grade C (Aprobado)
- 7.0 to 8.9: Grade B (Notable)
- 9.0 to 10: Grade A (Sobresaliente)

The "Honours" distinction (Matrícula de Honor) may be awarded to students who achieve a final grade equal to or higher than 9.0. The number of Honours distinctions may not exceed 5% of the students enrolled in the course in a given academic year. If fewer than 20 students are enrolled, a single Honours distinction may be awarded. In the event that there are more candidates than available Honours distinctions based on the number of students, priority will be given to those whose final grade is equal to or higher than 9.5. If there are still more candidates with the same grade, an additional examination on the course content will be administered to resolve the tie.

Students following the continuous assessment system must obtain a minimum score of 3 out of 10 in each of the two written exams that will be held at the end of the corresponding semester (Minimum of 3/10 required in theoretical and practical exams). If these conditions are met, the final grade will be calculated as the weighted average of the three components, according to the percentages indicated in the table above.

8.2.2 Examinations Convocatory II

Same structure. Previous grades for lab/participation may be preserved if agreed.

8.2.3 Examinations Convocatory III

Same structure as the single final evaluation.

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8.2.4 Extraordinary Convocatory

Same as single final evaluation.

8.3 Single Final Evaluation:

A single exam (max 3 hours) covering:

- Theory: 30%
- Practical: 50%
- Software-based assessment: 20%

Minimum of 3/10 in theory and practical sections required.