

1. BASIC INFORMATION

Course	Statistics I
Degree program	Bachelor's Degree in Business Analytics
School	Social Sciences and Communication
Year	1st
ECTS	6 ECTS
Credit type	Core
Language(s)	Spanish
Delivery mode	On campus
Semester	First semester
Academic year	2025-26
Coordinating professor	Gema García Rojas

2. PRESENTATION

Statistics I is a core subject area in the Bachelor's Degree in Business Analytics. It is the first subject area in the degree that covers statistics, being the students' first encounter with statistical techniques and methods. The general aim is that the students learn the most appropriate methods and techniques for researching and processing data and information on economic and business variables. Students will work with variables from different national and international databases so that, after interpretation, they will be able to make decisions based on objective reasons.

Decision-making is crucial in the business world, and statistics is an essential element that provides objective and reliable information to be used for efficient decision-making. This science provides tools that help to fill information gaps through estimation, as well as properly quantify known data.

For this reason, the students are introduced to descriptive data analysis on economic and business realities. This analysis is essential for decision-making in any business activity, in marketing and commercial departments in any sector. In addition, it lays the foundations for other more complex statistical analyses.

3. COMPETENCIES AND LEARNING OUTCOMES

Basic skills:

- CB2 - Students can apply their knowledge to their work or vocation in a professional manner and possess the skills which are usually evident through the forming and defending of opinions and resolving problems within their study area.

Cross-curricular skills:

No data available.

Specific skills :

- CE10 - Ability to analyse, integrate and evaluate information from the economic environment, which is necessary for decision-making.
- CE14 - Knowledge of statistical and econometric tools for the analysis of economic and business variables.
- CE16 - Ability to use the mathematical tools necessary for solving economic problems and using basic methods of calculation, algebra and programming.
- CE26 - Critical thinking and objectivity to question data and truths assumed on the basis of preceding data.
- CE33 - Ability to handle computer tools for statistical processing and other tools such as simulators with ease and technical solvency.

Learning outcomes :

- RA 1. Searching and processing information on economic and financial variables from different national and international databases.
- RA 2. Carrying out descriptive analyses of data and reports on economic and business realities.

The following table shows how the skills developed in the subject area relate to the intended learning outcomes:

Competencies	Learning outcomes
CB2, CE1, CE5, CE6, CE7, CE21,	RA1: Understanding of the basic concepts of business and its environment, as well as the main functional areas of business.
CB2, CE1, CE5, CE6, CE7, CE21,	RA2: Carrying out of case studies and cooperative tasks that demonstrate that the student has acquired the concepts described in the previous paragraph.

4. CONTENT

The subject is organised into six learning units, which in turn are divided into topics (four or five topics depending on the units):

Unit 1: Introduction to statistics

- 1.1. Concept of statistics.
- 1.2. Stages of a statistical study.
- 1.3. Some basic concepts.
- 1.4. Some sources of information.

Unit 2: Frequency distributions

- 2.1. Frequency distributions.
- 2.2. Grouped frequency distributions.
- 2.3. Graphic representation of statistical variables.

Unit 3: Position, dispersion and shape measures

- 3.1. Measures of position.

- 3.2. Measures of dispersion.
- 3.3. Measures of shape.

Unit 4: Analysis of bidimensional variables: qualitative - quantitative

- 4.1. Correlation tables and contingency tables.
- 4.2. Marginal distributions and conditional distributions.
- 4.3. Dependency relations.
- 4.4. Regression and correlation.

Unit 5: Index numbers and concentration measures.

- 5.1. Simple index numbers. Definition and properties.
- 5.2. Complex index numbers.
- 5.3. Concentration measures.

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methods are as follows:

- Lecture / web conference.
- Collaborative learning.
- Problem-based learning.

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Learning activity	Number of hours
Lectures	29
Asynchronous lectures	12
Problem-solving	25
Oral presentations	5
Writing reports and papers	30
Independent working	35
Tutorials	10
Knowledge tests	4

Workshop tasks	5
Knowledge tests	4
TOTAL	150 h

7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

Assessment system	Weight
Knowledge test	50%
Problem solving and projects (in group)	20%
Individual activities	20%
Ongoing evaluation	10%

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

7.1. First exam period

To pass the subject area in the ordinary exam period you must obtain a grade higher than or equal to 5.0 out of 10.0 in the final grade (weighted average) for the subject area.

In any case, it is necessary that you obtain a grade higher than or equal to 5.0 in task 6 (final exam), so that it can be averaged with the rest of the tasks. If the grade achieved in the final exam is lower than 5, this grade will be used as the final mark.

This test is not, in any case, a release in the event of the student not passing the subject area in the ordinary exam period. The final test will always be compulsory regardless of whether the subject has been passed in the ordinary exam period.

7.2. Second exam period

To pass the subject area in the ordinary exam period you must obtain a grade higher than or equal to 5.0 out of 10.0 in the final grade (weighted average) for the subject area.

In any case, it is necessary that you obtain a grade higher than or equal to 5.0 in task 6 (final exam), so that it can be averaged with the rest of the tasks. If the grade achieved in the final exam is lower than 5, this grade will be used as the final mark.

The final exam will always be compulsory regardless of whether the subject has been passed in the ordinary exam period.

Tasks not passed in the ordinary exam period, or those not delivered, must now be delivered after having received the relevant corrections to them by the teacher.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Assessable activities	Deadline
On-campus knowledge test	7th week
Submission/defence of empirical work	7th week
On-campus knowledge test	15th week
Submission/defence of empirical work	14th week
On-campus knowledge test	16th week

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. BIBLIOGRAPHY

The main reference work for this subject is:

- Lind, D.A., Marchal, W.C., Wathen, S.A., (2022), "Basic Statistics for Business & Economics", McGraw Hill, 10th edition.

The recommended Bibliography is:

- Newbold, P., Carlson, W.L., Thorne, B., (2012), "Statistics for Business and Economics", Prentice Hall, 8th edition.
- Ross, S., (2017), Introductory Statistics, Academic Press, 4th edition.

10. EDUCATIONAL GUIDANCE AND DIVERSITY UNIT

From the Educational Guidance and Diversity Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the students inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities. From this unit we offer to our students:

1. Accompaniment and follow-up by means of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing an equal opportunities for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.
4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:

orientacioneducativa@universidadeuropea.es

11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “surveys” section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.