1. BASIC INFORMATION

Course	STATISTICS
Degree program	ADE GLOBAL (BUSINESS ADMINISTRATION BACHELOR'S DEGREE)
School	SOCIAL SCIENCE
Year	2nd
ECTS	6
Credit type	BASIC
Language(s)	ENGLISH
Delivery mode	FACE-TO-FACE (on-site)
Semester	4
Academic year	2025/2026
Coordinating professor	MIGUEL GALIANA MARTÍNEZ

2. PRESENTATION

Statistics is a branch of mathematics dealing with the collection, organization, analysis, interpretation and presentation of data in any scope, either academic or professional: economics, politics, science, etc…

The aim of this topic is to provide the students with specific tools and knowledge about Descriptive and Inferential Statistics. The purpose is enabling the students to analyze and process any dataset from an objective point of view; as well as to develop critical thinking in order to extract valid conclusions.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:
- CC1: students must have and understand basic concepts that they have acquired in previous years, regarding to this specific field of study.

- CC2: students must be able to apply their knowledge in a professional way using a broad range of tools to solve problems in the specific field of study.

- CC3: students must be able to gather reliable data and information to be applied in order to express their critical opinion about relevant topics.

Cross-curricular competencies:
- XC5: ability to apply knowledge into practice. Use the academic concepts acquired in the University in the real world.

- XC8: Management of information. Ability to browse, select and analize information from different sources.

- XC13: Problem resolution. Ability to find a solution before complex problems.

- XC15: Responsibility. Ability to meet their own commitments, and also classmates', in order to accomplish all the tasks in the learning process.

- XC18: Ability to use the Technologies of Information and Communication in different situations. Ability to develop oral competences.

Specific competencies:

- SC12: Ability to analize, integrate and evaluate information that comes from the economic field and it is essential in the decision-making process.

- SC19: Knowledge of the main tools in Statistics and Econometrics to analyze different types of variables.

Learning outcomes:

- LO1: Search, analyse and process information about the main economic variables in different national and international databases.

- LO2: Perform descriptive analyses of data and write reports related to the current economic global situation.

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
CC1, CC2, CC3, XC5, XC8	LO1: Search, analyse and process information about the main economic variables in different national and international databases.
XC13, XC15, XC18, SC12, SC19	LO2: Perform descriptive analyses of data and write reports related to the current economic global situation.

4. CONTENT

- Introduction to Statistics
- Frequency distribution
- Central tendency and variability
- Shape of a distribution
- One dimensional and two dimensional analysis
- Index numbers and concentration indexes
- Sampling and Statistical Inference

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Cooperative Learning
- Problem Based Learning
- Project Based Learning
- Master Class

6. LEARNING ACTIVITIES

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

Campus-based mode:

Learning activity	Number of hours
Master class	24 h
Asynchronous classes	16 h
Autonomous work	20 h
Oral presentations	5 h
Problem Based Learning (PBL)	25 h
Writing reports	10h
Teamwork activities	20h
Tests and exams	10h
Tutorials	20h
TOTAL	**150 h**

7. ASSESSMENT

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

Campus-based mode:

Assessment system	Weight
Test and exams	40%
Case analysis and problem resolution	25%
Reports	20%
Oral presentation	15%

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 course in the first exam period, you must obtain a final course grade of at least 5 points out of 10 (weighted average).

In any case, you will need to obtain a grade of at least 5 points in both tests for it to count towards the final grade along with all the grades corresponding to the other activities.

IMPORTANT: To take the first exam period, students must reach (at least) an attendance of 50% in face-to-face classes.
In case the attendance is below 50%, the student will directly go to the second exam period.

7.2. Second exam period

To pass the course in the second exam period, you must obtain a final grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 5 points in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

In case the student passed both tests in the first round but doesn't reach a global mark of 5 points in the subject due to the deliveries of continuous assessment, he/she will have to deliver a dossier of activities proposed by the professor.

8. SCHEDULE

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

Assessable activities	Deadline
DELIVERY ACTIVITIES UNIT 1	WEEK 1-2
DELIVERY ACTIVITIES UNIT 2	WEEK 2-3
DELIVERY ACTIVITIES UNIT 3	WEEK 4-5
MIDTERM EXAM	WEEK 6
DELIVERY ACTIVITIES UNIT 4	WEEK 7-8
DELIVERY ACTIVITIES UNIT 5	WEEK 9-10
DELIVERY ACTIVITIES UNIT 6	WEEK 11-12
DELIVERY ACTIVITIES UNIT 7	WEEK 13
PRESENTATION FIELD STUDY	WEEK 14-15
FINAL EXAM	WEEK 16

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.

Several of these activities will tackle some of the 17 Sustainable Development Goals (SDG) established by the UN.

You can get further details of these activities when you access the Virtual Campus.

9. BIBLIOGRAPHY

The main reference work for this subject is:

- Sternstein, M. (2024). *AP statistics premium, 2025*. Kaplan North America, LLC, d/b/a Barron's Educational Series.

- Spiegelhalter, D. (2019). *The art of statistics: Learning from data*. Pelican Books

- Hoerl, R. and Snee, R. (2012). Statistical thinking improving business performance. Wiley and SAS business series.

- Berenson M.L. and Levine D.M. Basic Business Statistics, Prentice-Hall, Englewood Cliffs, New Jersey, 1996.

- Bhattacharyya, G. K., and R. A. Johnson. Statistical Concepts and Methods, John Wiley and Sons, New York, 1997.

Other recommended Bibliography:

- Basilevsky, A.Statistical factor analysis and related methods: Theory and applications.New York: John Wiley and Sons, 1994.

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- Bhattacharyya, G. K., and R. A. Johnson. Statistical Concepts and Methods, John Wiley and Sons, New York, 1997.

- Bickel, P. J., & Doksum, K. A.Mathematical statistics: Basic ideas and selected topics (2nd ed., Vol. 1). Paramus, NJ: Prentice Hall, 2000.

- Blossfeld, H., Hamerle, A., & Mayer, K. U.(1989).Event-history analysis: Statistical theory and application in the social sciences. Mahwah, NJ: Lawrence, 1989.

- B. Marr; Big Data. Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance. Ed. Willey, 2015.

- Dennis D. Boos y L. A. Stefanski. (2013) Essential statistical inference: theory and methods. Springer-Verlag New York

- R. Glass & S. Callahan; The Big Data-Driven Business. Ed. Willey, 2015.

- W. Ammermand; The Invisible Brand, Marketing in the Age of Automation, Big Data and Machine Learning. Ed. Willey, 2019.

10.   EDUCATIONAL GUIDANCE, DIVERSITY AND INCLUSION UNIT

From the Educational Guidance, Diversity and Inclusion Unit (ODI) 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.uev@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.

PLAGIARISM REGULATION

- Plagiarism, either wholly or in part of an intellectual property, will be considered as a serious misconduct.
- The use of fraudulent or illicit means to pass the subject will be reflected in the academic record of the student as a serious fault. This will lead to fail the subject in the corresponding exam period.
- In the case of suspicion of inappropriate use of Artificial Intelligence technologies, the teacher reserves the right to ask the student to defend the activity orally. If the student cannot defend it sufficiently, the activity will be graded with a score of 0.