SUBJECT
SUBJECT TITLE: Statistics with Business Applications
QUARTER AND ACADEMIC YEAR: 2nd semester, 2023/24
SCHEDULE: Monday and Tuesday, 11:30-13:00
PREREQUISITES: Basic knowledge of mathematics
COMPETENCES- OBJECTIVES (BRIEF DESCRIPTION): General competencies: • Development of the ability to analyze, synthesize and solve problems with a quantitative nature. • Development of communication and group work skills. Transversal skills: • Information search capacity • Ability to apply theoretical knowledge to practice • Use of information technologies Specific competencies • Identification, analysis, interpretation and presentation of economic and business information data

TEACHER
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DISPATCH: 228, Edificio 1, Facultad de CC. Económicas, Campus Somosaguas
TUTORING HOURS: Wednesday and Thursday, 12:30-3:30 p.m.

CALENDAR OF CLASSES, TOPICS, READINGS AND TASKS ASSIGNED
Week 1: Subject presentation. Topic 1: Introduction to statistical knowledge Week 2: Topic 2: Data organization. Graphic representation Week 3: Topic 3: Measures of central tendency. Week 4: Topic 3 (cont.): Measures of dispersion Week 5: Topic 4: Descriptive statistics with 2 variables Week 6: Topic 4 (cont.) Correlation and regression Week 7: Topic 5: Probability. Basic concepts Week 8: Topic 5 (cont.) Total probability and Bayes theorem

Week 9: Topic 5 (cont.) Discrete and continuous probability
Week 10: Topic 6: Random variable. Basic concepts
Week 11: Topic 6 (cont.) Mathematical expectation and variance
Week 12: Topic 7: Discrete probability models. Bernoulli distribution, binomial distribution, Poisson distribution.
Week 13: Topic 7 (cont.) Continuous probability models. Normal distribution.
Week 14: Review and consolidation of concepts

TEACHING METHODOLOGY

The course focuses on collaborative and cooperative activities, with an important component of practical exercises, using spreadsheets (Excel or LibreOffice).
All theoretical aspects of statistics will be illustrated with examples and applications to business, finance and economics.

SUBJECT OBJECTIVES

The student learns the statistical concepts and methods necessary to study, present and correctly interpret the quantitative information that occurs in the economic and business fields.

EVALUATION AND QUALIFICATION CRITERIA

PARTIAL EXAM and GROUP WORK: 30%

FINAL EXAM: 50 %

WRITTEN WORK, PRESENTATIONS and CLASS PARTICIPATION: 20 %

ATTENDANCE: It is mandatory. From the second absence without justification, a point will be lowered in the Spanish grading system (for example, an 8 will drop to a 7). In the case of the Spanish Cinema class, missing one class will be equivalent to two absences. Likewise, lateness will also be penalized, more than 15 minutes late will be equivalent to an absence. Excused absences are considered those documented by the appropriate physician or program director.

ACADEMIC INTEGRITY: Plagiarism, the use of materials not permitted in exams and tests, copying answers from another classmate, falsification or misappropriation of information for assignments, submission of the same assignment or sections of it in more than one course, helping are prohibited. to a student who is cheating, etc. The penalty will be left to the discretion of the subject professor and the student's Program
Director, in accordance with their campus policies and procedures.

GUIDE AND INDICATIONS FOR WRITTEN WORK

Several practical exercises will be carried out during classes, which consist of data analysis and presentation using spreadsheets (Excel). Students must submit reports of these exercises, as well as
complementary exercises to be performed outside of class hours, with interpretive comments.
Specific instructions and delivery times will be communicated in class and through the Virtual Campus.

MANDATORY BIBLIOGRAPHY AND OTHER RESOURCES
Newbold, P., W. L. Carlson and B. Thorne. Statistics for Business and Economics. 10$_h$ global edition, Pearson 2022.   Software: Spreadsheet (Excel or LibreOffice)   Databases: INE, Eurostat and other official organizations   Materials made available to students through the Virtual Campus: - Presentations of the theoretical classes   - Proposed and complementary exercises   - Other complementary materials