

Probability and Statistics A

Guía docente 2025-26

INTRODUCTION

Course description:

This course introduces the basic concepts on Probability & Statistics. Students will be able to, using different statistical techniques and datasets, infer scientific conclusions particular economic or business problems.

Departament: Economics

School: Economics and Business Administration

Degrees: Administración y Dirección de Empresas (ADE)

Itineraries: All

Year: 2nd year

Timing: First semester

Number of ECTS credits: 6 ECTS (150 h)

Type of course: Compulsory

Module: Métodos cuantitativos (quantitative methods).

Subject: Probability and Statistics.

Language: English

Instructor: Juan Equiza (jequizag@unav.es)

Schedule:

• https://www.unav.edu/web/facultad-de-ciencias-economicas-y-empresariales /estudiantes/horarios

LEARNING OUTCOMES (Competencies)

Basic and General Competences

BC3. Students must have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific and ethical topics.

Specific Competences

SC8. To analyse quantitative information on economic and business phenomena and variables using mathematical and/or software tools.



SC15. To analyse data using software tools on specific areas of economics and/or business.

PROGRAM

CHAPTER 1 Introduction to Statistics

CHAPTER 2 Descriptive Statistics

CHAPTER 3 Probability

CHAPTER 4 Probability Models

CHAPTER 5 Statistic Inference

CHAPTER 6 One sample tests of hypothesis

CHAPTER 7 Two sample tests of hypothesis

CHAPTER 8 Analysis of Variance

CHAPTER 9 Simple linear regression model

EDUCATIONAL ACTIVITIES

ED1. Lectures (28 hours): theoretical and practical classes. Students are expected to take notes and use material made available through ADI.

ED2. Group assignment (15 hours). Students are required to apply the knowledge and tools learned during the lectures.

ED3. Personal and teamwork: Study of the theory, solution of problem sets, group assignment, and clarifications during office hours.

ED4. Evaluation: Midterm (2 hours) and final exam (3 hours).

ASSESSMENT

Grades will be based on:

- Ongoing evaluation (10%)
- Group data project (15%)
- Midterm exam (20%)
- Final exam (55%)
- Students must achieve at least a 4 in the final exam to pass the course.

In June, there is an extraordinary exam that allows to pass 100% of the grade.

HONESTY IS THE BEST POLICY

(Ethics Committee Provisions Against Plagiarism and Copying)



We value honesty. Without it, there can be no trust or any meaningful social relations. Therefore, the School expects honesty and fairness from all of its members: professors, non-academic staff, and students.

Dishonest behaviours will be sanctioned in accordance with the <u>University regulations</u> regarding academic discipline, and include lying, cheating in exams, and plagiarism in written work. We take such violations seriously. Depending on their gravity, these offences will be dealt with by the Professor in charge of the subject, by the Dean of Students, and in very severe cases, by the Vice President for Student Affairs.

Sanctions include:

- formal warnings
- prohibition from entering University premises for a given period
- loss of admission rights to exams
- loss of scholarships
- A failing grade for the piece of work or the whole course.

OFFICE HOURS

Dr. Juan Equiza Goñi (jequizag@unav.es)

- Office #2030 Edificio Amigos Floor 2 (hilera)
- Schedule:
 - Tuesday, Wednesday, and Thursday 9:30-11:00
 - please, send me an email in advance to fix an appointment

BIBLIOGRAPHY

Main reference

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

https://highered.mheducation.com/sites/1260716317/student_view0/

Other references

- Newbold, P., Carlson, W.L., Thorne, B., (2012), "Statistics for Business and Economics", Prentice Hall, 8th edition. Localízalo en la Biblioteca
- Ross, S., (2017), Introductory Statistics, Academic Press, 4th edition. <u>Localízalo en la Biblioteca</u>

Resources

For each of the chapters, the following resources will be available in ADI Power poing slides