Universidad de Navarra

Probability and Statistics B

Guía docente 2026-27

INTRODUCTION

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.

- **Degrees:** Eco + IEF, Eco + Data, Eco + Gov, Eco + Law, PPE
- **Module**: Quantitative Methods
- **ECTS**: 6 ECTS (150 h)
- **Year, Semester**: 2nd Year, 1st Semester
- **Type of course:** Compulsory
- **Instructor:** Juan Equiza Goñi (jequizag@unav.es) & Jesús Otero (joteroc@unav.es)
- **Language:** English
- **Schedule/Clasroom**:
    - Thursday, 17:30-19:30 in Aula 110
    - Friday, 15:00-19:00 in Aula S01

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

SC6. Use software tools in the quantitative and/or qualitative analysis of economic and/or business issues with sound judgment.

PROGRAM

1 Introduction to Statistics (Lind 1)

2 Descriptive Statistics (Lind 2-4)

3 Probability (Lind 5)

4 Probability Models (Lind 6-7)

5 Statistic Inference (Lind 8-9 & Newbold 7.5)

6 One sample tests of hypothesis (Lind 10 & 13.1-2)

7 Two sample tests of hypothesis (Lind 11 & Newbold 10.3-4)

8 Analysis of Variance (Lind 12)

9 Simple linear regression model

Universidad de Navarra

EDUCATIONAL ACTIVITIES

ED1. Lectures (48 hours): theoretical and practical classes. Students are expected to take notes and use material made available through ADI.

ED2. Data project (16 hours). Students are required to apply the knowledge and tools learned during the lectures.

ED3. Personal study and teamwork: Study of the theory, solution of problem sets, group assignment, and clarifications during office hours (80 hours).

ED4. Evaluation: Tests/Exercises (2 hours), Midterm (2 hours) and Final Exam (2 hours).

ASSESSMENT

In **December**, final marks will be based on:

- Ongoing evaluation (20%)
- Midterm exam (25%)
- Final exam (55%)
- Students must achieve at least a 4 in the final exam to take into account the midterm and ongoing evaluation.

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

Good news. The students that obtain 6 or more in the midterm exam can choose skip the questions regarding that content in the exams in December and June. Their grade in those skipped questions is that of the midterm exam.

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 University regulations 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:
  - please, send me an email in advance to fix an appointment

Dr. Jesús Otero (joteroc@unav.es)

- Office #4070 Edificio Amigos Floor 4 (torre)
- Schedule:
  - 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. Localízalo en la Biblioteca

Resources

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