Universidad de Navarra

Econometrics A

Guía docente 2025-26

PRESENTATION

Brief description: This is an introductory course aimed at providing the basic tools for empirical analysis of the relationships between economic variables. It is expected that students choose those more appropriate for a given economic/entrepreneurial problem, being aware of the advantages and disadvantages, as well as being able to interpret the results. In order to ease comprehension, a set of applications using data and software will be provided.

ACADEMIC YEAR 2025-2026

- **Departament**: Economics
- **School**: Economics and Business Administration
- **Degrees**: Gr.ADE+GenMan.; Gr.ADE+Innov.
- **Module/Subject**: Quantitative Methods / Basic econometrics
- **Timing:** 2nd year, 2nd semester
- **ECTS**: 6 ECTS
- **Type of course**: Compulsory
- **Language**: English
- **Instructor**: Ernesto M. Gavassa Pérez (egavass@unav.es)
- **Time and place of classes**: Check directly here: Timetable
- **Students with special needs:** Please, contact the instructor at the beginning of the semester.

LEARNING OUTCOMES (Competencies)

GC8: To develop expectations, describe scenarios and make estimates using relevant information for the company.

CE8: To analyse quantitative information on economic and business phenomena and variables using mathematical and/or software tools.

CE15: To analyse data using software tools on specific areas of economics and/or business.

SYLLABUS

Chapter 1: Economic questions and data

Chapter 2: Probability and statistics review

Chapter 3: Linear regression with one regressor

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Chapter 4: Hypothesis testing and confidence intervals

Chapter 5: Linear regression with multiple regressors

Chapter 6: Hypothesis tests and confidence intervals in multiple regression

Chapter 7: Non-linear regression functions: logarithms and polinomials

Chapter 8: Non-linear regression functions: interactions

Chapter 9: Studies based on multiple regression

- *Applications* with software tools

FORMATIVE ACTIVITIES

On campus (54 hrs): There will be two types of classes: theoretical and practical. Students are encouraged to attend all classes.

In theoretical classes, the most important concepts of the course will be explained. The instructor will post in ADI all necessary documents (compulsory and elective) for each chapter. Students are invited to ask any questions about this material during office hours.

In practical classes, the exercise sheets will be covered and additional problems may be considered. Students are advised to try to solve the exercise sheets on their own before coming to class.

Individual study: (85-90 hrs): Time devoted to studying and personal work. This time includes that devoted to learning concepts, solving problems, watching online videos, doing online tests, etc

Tutorials: (2 hrs): Presenting and solving doubts and questions with the instructor

Assessment (4 hrs): Both midterm and final exam will last around 2 hours. Students are recommended to read and briefly plan the time distribution before starting to answer the questions. The evaluation method is described in the section "Assessment". Students must show they have learned the material and acquired the required competences.

EVALUATION

FIRST SIT

- **Midterm** (date: check schoolʹs web): 30%
- **Class quizzes** (unannounced): 15%
- **Final** (comprehensive,date: check schoolʹs web): 55%

A minimum grade of 3.5 in the final exam is required to pass the subject.

RESIT

- **Final Exam (First Sit)**: 10%
- **Midterm**: 20%

- **Class quizzes (unannounced)**: 15%
- **Final Exam (Resit)**: 55%

A minimum grade of 3.5 in the final exam (Resit) is required to pass the subject.

Description of assessment activities:

The exams (midterm, final and June exam) will take place at the places and times announced in the school´s website. The exact structure of these exams will be announced through the course.

Observations:

Class quizzes will be solved in-class. The grade for this part will be calculated using only a % (to be determined) of the total number of tests carried out, so that missed supervised tests need not be justified. Absences will simply count towards the other % of non-graded activities.

Both final and midterm are compulsory

The final is comprehensive

HONESTY IS THE BEST POLICY (**Regulation** (http://www.unav.edu/documents/11306/16533790/6-normativa-disciplina-academica.pdf))

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 Norms on Student Academic Discipline of August 2015, 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

Students with special needs:

- **Please, contact the instructor at the beginning of the semester.**

OFFICE HOURS

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Dr. Ernesto M. Gavassa-Perez (egavass@unav.es)

- **Address**: Office 2520, Amigos Building. 2nd Floor.
  - **Office Hours**: Send an email to arrange a meeting for any of the following slots
    - Wednesday: 8:00 – 12:00

Rules for office hours:

1. The slots have been chosen so that there's no clashes with your other second year classes. You should only ask for office hours within the allocated slot.
2. If no email is sent, the default is assuming that there will be no office hours. Please, email and schedule a meeting so that the professor makes sure he is in the office waiting for you.
3. The class currently has around 200 people enrolled; so, unfortunately, the time is limited with each of you. Please, be straightforward and clear with your doubts so that we can maximize the benefit of each session. Office hours are not expected to take longer than 15 minutes per student. You may join office hours in groups of students to have a longer session.
4. Although you might think your professors only teach, we have to do multiple tasks in our jobs: we have to do research, attend international conferences, prepare for other classes, and carry out administrative duties to ensure a good management of the Department. Indeed, teaching and office hours only represent 20% of our weekly schedule (i.e., 8 hours per week). Hence, we ask for your empathy when deciding when, and how, to meet. Meeting with every student very close to the exam dates will not be possible. Hence, you are encouraged to study in a timely manner and solve doubts in office hours regularly, rather than postponing all the study and doubts for the end of the Semester.

BIBLIOGRAPHY

Basic

We will refer to two main textbooks during the course:

Stock, J.H. and Watson M.W., 2015, Introduction to Econometrics, Pearson: Global Edition, Updated 3rd Edition

Wooldridge, J.M., 2009, Introductory Econometrics: A Modern Approach**,** South-Western: International Student Edition.

I will tell you what parts of each book correspond to each part of the syllabus in due time. You are strongly advised to either borrow one textbook from the library, or purchase it.

Complementary

There are great sources of textbooks for econometrics. However, I will not reference them here in order not to overwhelm you. That been said, if you want to deepen your knowledge on the more applied side of econometrics, there are three excellent books with examples:

Baddeley, M.C., and Barrowclough, D.V., 2014, Running Regressions, Cambridge University Press

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Chatterjee, S., and Hadi, A.S., 2013, Regression analysis by Example, Wiley, 5th Edition

Gujarati, D.N., 2015, Econometrics by Example, Palgrave, 2nd edition.