COURSE DATA

Data Subject	
Code	35934
Name	Statistics I
Cycle	Grade
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1315 - Degree in Finance and Accounting	Faculty of Economics	1	Second term

Subject-matter

Degree	Subject-matter	Character
1315 - Degree in Finance and Accounting	6 - Statistics	Basic Training

Coordination

Name	Department
CUÑAT GIMENEZ, RUBEN JOSE	110 - Applied Economics

SUMMARY

Statistics I is a basic training subject assigned to the area of Quantitative Methods for Economics and Business that is lectured in the second term of the first year of the Finance and Accounting Degree.

The formative importance of the subject can be established in a double aspect:

a) On the one hand, the basic training to get the capacitiy of description, analysis, understanding and synthesis for the prediction that is carried out with accesible information (usually numerical) taken as true.

b) On the other hand, basic training under uncertity conditions. Knowledge of statistical language and mathematical theories and models in the probabilistic framework.

The training referred to in section a) is also basic for the development of other subjects of the degree.

In the professional development of the graduates in the Degree of Finance and Accounting, critical reading and the adequate creation of reports and statistical analysis both descriptive and predictive seem fundamental.

Briefly, the contents developed in this subject are the following:

Descriptive analysis of variables and statistical data. Inequality measures and economic indicators. Linear regresion. Introduction to probability. Random variables and probabilitiy distributions. Specific models of probability.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

It is recommended that in order to take this course successfully, the student must have a level of mathematics basic (the knowledge that corresponds to first and second of baccalaureate in the branch of and social sciences).

OUTCOMES

1315 - Degree in Finance and Accounting

- Conocer y comprender las herramientas estadísticas básicas para la presentación y descripción de resultados financieros y empresariales.

LEARNING OUTCOMES

The fundamental learning outcomes expected in this subject are:

- Ability to develop and defend an economic report.

- Ability to recognise an economic problem based on the observation of the economic reality.

- Management of basic quantitative tools and their application to the economic enviroment.

- Ability to select a theoretical framework of reference for analysis.

- Knowledge and understanding of the basic tools of quantitative nature for analysis, diagnostic and prospection.

- Ability to identify the econometrics problems raised in the model and to apply the theorretical knowledge for its correct treatment.

- Ability to search, select and assess the appropiate information for the analysis.

- Abilitiy to apply different methods and analysis tecniques under uncertainty.

DESCRIPTION OF CONTENTS

1. Univariate data analysis

1.Introduction
2.Univariate data: measures of central position, dispersion and shape
3.Measures of concentration

2. Multivariate data analysis

1.Multivariate data: joint and marginal frequency distributions
2.Mean vector and variance-covariance matrix
3.Relationship between variables

3. Regression

1.Introduction
2.Least squares regression
3.Goodness of fit

4. Time series models

1.Introduction
2.Economic indices
3.Time series

5. Univariate Probability Models

1.Introduction to probability theory
2.Random variable and probability distribution
3.Discrete and continuous random variables
4.Expected value and variance. Properties.

6. Specific Univariate Probability Models

1.Discrete models
2.Continuous models

7. Multivariate Probability Models

1.Introducción
2.Joint probability distributions, marginal probability distributions and conditional probability distributions
3.Mean vector and variance-covariance matrix
4.Independence. Correlation coefficient
5.Specific multivariate probability models

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Computer classroom practice	15,00	100
Classroom practices	15,00	100
Development of group work	15,00	0
Development of individual work	6,00	0
Study and independent work	14,00	0
Readings supplementary material	10,00	0
Preparation of evaluation activities	10,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	10,00	0
Resolution of case studies	15,00	0
TOTAL	**150,00**	

TEACHING METHODOLOGY

The development of the subject is structured around theory sessions, practical sessions and laboratory sessions. In the theory classes, concepts are introduced and contextualised in the different fields of application of the economic and financial framework. The student is motivated and indicated the most appropiate resources to study the subject in depth.

For laboratory classes it will be necessary to use the computer. In these classes the teacher will be able to propose data files that students will analyse and apply under the teacher supervision, the concepts learned in the theory and practice classes.

EVALUATION

The students learning shall be evaluated through a continous assesment process plus a written synthesis test at the end of the term.

The aim of the continous assesment process is to develop the students skills and enhance the daily work. This part of the evaluation process is backed on class atendance, participation and evaluable wrok. It represents 30% of the final grade.

The systhesis test wil consist of a written test to assess whether the student has assimilated the key concepts of the program. This test represents 70% of the final grade.

The final grade is the weighted sum of the synthesis test plus the continous assessment process. In the case the final test is not passed, the final grade cannot exceed a maximum of 4.5.

The student who does not participate in the continous assessment process, could be evaluated in the synthesis test over a maximum of 7. In order to pass the subject, the student might have obatained a minimum of 5 out of 7 in the final test. Due the nature of the continous assessment proves, these are non-recoverable.

REFERENCES

Basic

- CEACES, Proyecto (Contenedor Hipermedia de Estadística Aplicada a las Ciencias Económicas y Sociales). Universitat de València.
  ON LINE:
  http://www.uv.es/ceaces
- ESCUDER, R. y MURGUI, J.S. (1995). Estadística Aplicada. Economía y Ciencias Sociales. Valencia: Tirant lo Blanch.
- ESTEBAN, J. y otros (2006). Estadística Descriptiva y nociones de Probabilidad. Thomson 2005 (2ª impresión 2006).
- LIND, D.A.; MARCHAL, W.G.; WATHEN, S.A. (2008). Estadística Aplicada a los Negocios y la Economía. Méjico McGraw-Hill.
- MURGUI, J.S. et al. (2002). Ejercicios de Estadística. Economía y Ciencias Sociales. Valencia: Tirant lo Blanch.
- BEAMONTE, E. (2011). Apuntes de Estadística I. Grado en Finanzas y Contabilidad. Reproexpres S.L., Valencia.

Additional

- ANDERSON, D.R.; SWEENEY, D.J. y WILLIAMS, T.A. (2001). Estadística para Administración y Economía. México: International Thomson.
- DeGROOT, M.H. (1988). Probabilidad y Estadística. Wilmington: Addison-Wesley Iberoamericana Wilmington.
- HILDEBRAND, D.K. y OTT, R.L. (1997). Estadística aplicada a la Administración y a la Economía. Wilmington: Addison-Wesley Iberoamericana.
- MARTÍN-PLIEGO, F.J. (1987). Curso práctico de Estadística Económica. Madrid: Editorial AC.
- MARTÍN-PLIEGO, F.J. (2004). Introducción a la Estadística Económica y Empresarial. Madrid: International Thomson.
- MARTÍN-PLIEGO, F.J. y RUIZ MAYA, L. (2004). Estadística I. Probabilidad. Madrid: International Thomson. (3ª edición).
- MONTIEL, A.M.; RIUS, F. y BARÓN F.J. (1997). Elementos básicos de Estadística Económica y Empresarial. Madrid: Prentice Hall.