

Información del Plan Docente

Academic Year	2016/17
Academic center	109 - Facultad de Economía y Empresa
Degree	449 - Degree in Finance and Accounting
ECTS	6.0
Course	1
Period	Second semester
Subject Type	Basic Education
Module	---

1.Basic info**1.1.Recommendations to take this course****1.2.Activities and key dates for the course****2.Initiation****2.1.Learning outcomes that define the subject****2.2.Introduction****3.Context and competences****3.1.Goals****3.2.Context and meaning of the subject in the degree****3.3.Competences****3.4.Importance of learning outcomes****4.Evaluation****5.Activities and resources****5.1.General methodological presentation**

The learning process of this subject is based on a set of theoretical and practical sessions using the blackboard and the computer resources.

5.2.Learning activities

There are programmed several types of learning activities in order to achieve the objectives of the subject.

(*) *Theoretical sessions* : These sessions will be taught by means of participative master classes where a set of slides will

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be used in order to explain the theoretical part of the subject. The aim of these sessions will be to establish the theoretical foundations of each theme, illustrating the studied concepts and ideas by means of illustrative practical examples. It is recommended to attend to these sessions because, in our experience, the theoretical part of the subject is the more difficult part to understand and study.

(**) *Practical Blackboard sessions* : These sessions will be devoted to the resolution of illustrative problems in the blackboard. To that aim an illustrative set of completely solved problems will be given to the students together with a set of some unsolved problems with their final solutions. In these sessions some of these problems will be solved in the blackboard by promoting the participation of the students in their resolution.

(***) *Practical computer sessions* : These sessions will be carried out in the computer rooms with the students working by teams. In these classes some supervised problems will be set-up by the teacher and will be solved by the different teams during half hour with a posterior half an hour to discuss among all the groups, the obtained results.

(****) *Personal tutorials* : These tutorials will have located in the teacher's office by appointment and will be devoted to solve particular doubts about concepts, problems, etc previously explained in the theoretical and practical sessions.

Platform *Moodle 2.0* will be used to publish all the theoretical and practical materials and all the information about the development of the subject along time.

Teaching activities (in credits ECTS): 6 ECTS=150h

Activities	Teaching hours	Hours of personal work	Total
Theoretical sessions (one group)	30	30	60
	22	43	65
<i>Practical computer sessions</i> (two subgroups)	4	6	10
Practical blackboard sessions (two subgroups)	4	6	10
	2		2
Practical P6 (two subgroups)	3		3
Computer Tests (four subgroups)			
Final exam			
TOTAL	65	85	150

5.3.Program

Lesson 1: Statistical Methods in Business and Economics

Introductio. Historical Evolution. Concept of Estadistics. The statistical method. Statistics in Business and Economics

Lesson 2: Scales of Measurement and Information Sources

Introduction. Information Sources. Basic Concepts. Data and variables. Scales of Measurement.

Lesson 3: Describing Univariate Data: Frequency Tables and Graphic Presentation.

Frequency Tables. Graphical Presentations

Lesson 4: Describing Univariate Data: Numerical Measures

Introduction. Location measures. Variability measures. Skewness and Curtosis. Boxplot diagrammes. Other measures.

Lesson 5: Describing Bivariate Data: Frequency Tables and Graphic Presentation

Introduction. Joint, marginal and conditional frequencies distributions. Independence. Graphical Presentations.

Lesson 6: Correlation and Simple Linear Regression

Introduction. Scatter Diagrammes. Covariance and correlation. Linear regression simple: least squares criterion. Goodness of fit and correlation. Prediction. Non-linear regression.

Lesson 7: Indices Numbers

Introduction. Simple and complex indices. Deflation economic series. Link and change of base. Repercussion. Some notable economic índices.

Lesson 8: Probability

Introduction. Concept of Probability: Kolmogorov axiom's. Laplace rule. Combinatorics. Conditional Probability. Theorem of total probability. Theorem of Bayes.

Lesson 9: Statistical Decision Theory

Introduction. Setting-up a decisión problem. Decision Making under total and partial uncertainty. Bayes rule. Value and efficiency of the information.

5.4.Planning and scheduling

Date	Contents	Session
First week	Presentation.	Theoretical
	Lessons 1 and 2	Theoretical
Second week	Lesson 3	Theoretical
	Problems Lessons 1 and 2	Practical computer
Third week	Lesson 4	Theoretical
	Problems Lessons 3	Practical computer
Fourth week	Lesson 4	Theoretical
	Problems Lesson 4	Practical blackboard
Fifth week	Lesson 4	Theoretical
	Computer practice Lessons 2 to 4	Practical computer
Sixth week	Lesson 5	Theoretical
	Computer practice Lessons 2 to 4	Practical computer
	Problems Lesson 5	Practical blackboard
Seventh week	Lesson 6	Theoretical
	Problems Lesson 6	Practical computer

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Eighth week	Lesson 6	Theoretical
	First intermediate exam (Lessons 2 to 4)	
Ninth week	Lesson 7	Theoretical
	Problems Lesson 6	Practical blackboard
Tenth week	Lesson 7	Theoretical
	Problems Lesson 5 and 6	Practical computer
Eleventh week	Lesson 8	Theoretical
	Problems Lesson 7	Practical blackboard
Twelfth week	Lesson 8	Theoretical
	Second intermediate exam (Lessons 5 and 6)	
Thirteenth week	Lesson 8	Theoretical
	Problems Lesson 8	Practical blackboard
Fourteenth week	Lesson 9	Theoretical
	Problems Lesson 8	Practical blackboard
	Problem Lesson 9	Practical blackboard
Fifteenth week	Lesson 9	Theoretical
	Problems Lesson 9	Practical blackboard
	Final exam (lessons 7 to 9)	

5.5. Bibliography and recommended resources

Updated bibliography is available through the website of the library: <http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>