SUBJECT TEACHING GUIDE

G118 - Economics and Business Administration

Double Degree in Physics and Mathematics
Degree in Mathematics

Academic year 2026 - 2027

1. IDENTIFYING DATA					
Degree	Double Degree in Physics and Mathematics Degree in Mathematics			Type and Year	Optional. Year 5 Optional. Year 4
Faculty	Faculty of Sciences				
Discipline	Subject Area: Economics and Business Administration Mention in Pure and Applied Mathematics				
Course unit title and code	G118 - Economics and Business Administration				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. ADMINISTRACION DE EMPRESAS
Name of lecturer	SILVIA APARICIO OBREGON
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Other lecturers	

3.1 LEARNING OUTCOMES

At the end of the course the student ought to be capable of:
- know the economic language.
- Know the economic basic techniques applicable in his professional future.
- Know the operation of the economic basic units and its management instruments.
- Know the characteristics of an industrial sector, to be able to diagnose its problems and propose feasible solutions.
- Know the different types of markets and the role played by the different economic agents .
- Know the role played by companies in the economic activity.
- Know how companies can and must adapt to different economic situations .
- Know how to apply leadership and management methods to optimize the resources of the companies.
- Know the restrictions and potential advantages that stem from the different alternatives of organizational design .
- Solve exercises on risk situations and investment appraisal.
- Introduction to company• s production system.
- Know the financial resources function in the growth strategies of business policy.

4. OBJECTIVES

Objectives

Students should acquire the basic concepts needed to understand the economic processes involved in their discipline.
Students should incorporate the tools of economic and business analysis into their technical work.
Students should be able to identify the economic consequences of technical decisions, in order to defend the solutions they propose by incorporating the criterion of efficiency, understood as the costs and benefits of technical decisions.

6. COURSE ORGANIZATION

	CONTENTS
1	1. THE COMPANY AND ITS ENVIRONMENT Lesson 1. The company and the national and international general environment Lesson 2. The macroeconomic environment Lesson 3. The sectoriall environment
2	2. MANAGEMENT AND BUSINESS ADMINISTRATION Lesson 4. Management, planning and control Lesson 5. Organization and organizational behavior Lesson 6. Human resource management
3	3. FUNCTIONAL AREAS OF THE COMPANY Lesson 7. Investment and financing managment Lesson 8. Basic accounting concepts Lesson 9. Basic marketing concepts Lesson 10. Production

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessment	%
First continuous assessment test, accounting for 25% of the final grade for the course. It can be retaken in the extraordinary examination session.	Activity evaluation with Virtual Media	No	Yes	25,00
Second continuous assessment test, accounting for 25% of the final grade for the course. It can be retaken in the extraordinary examination session.	Activity evaluation with Virtual Media	No	Yes	25,00
Written examination accounting for 50% of the final grade. It can be retaken in the extraordinary examination session.	Written exam	Yes	Yes	50,00
TOTAL				100,00

Observations

The assessment of the course is structured into three main components: continuous assessment 1, continuous assessment 2, and the final examination, with the following weighting:

Continuous assessment 1: 25% of the final grade.
Continuous assessment 2: 25% of the final grade.
Ordinary examination: 50% of the final grade.

The ordinary examination will cover all the course content not passed through continuous assessment, as well as the remaining parts of the syllabus.

Criteria for passing the course overall

To pass the course, students must obtain a weighted final grade of 5 out of 10 or higher.

The continuous assessment component, including the partial test and class activities, will only be retained until the ordinary examination session.

In the extraordinary examination session, students will be required to sit an examination covering the entire course.

Observations for part-time students

As a general criterion, part-time students will be subject to the same assessment criteria as full-time students, although the timing of activities may be adapted to their time constraints when deemed necessary.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- Cuervo García, A. (2004): Introducción a la Administración de Empresas". Civitas Ediciones. Madrid. 4ª Edición.
- Guerras Martín, L.A y Navas López, J.E (2022), La dirección estratégica de la empresa: Teoría y aplicaciones (6.ª ed.). Thomson Reuters-Civitas.
- Tamames, R. (2025): Estructura Económica España. Ariel, 26° edición.
- Mankiw, G. (2012): Principios de Economía. Ediciones Paraninfo, 6ª Edición.
- Stiglitz, J. (1995): Economía. Ed. Ariel.
- Mochón, F. (2010): Principios de Economía, Mc Graw Hill, 4ª Edición.
- Moyano Fuentes, J. y otros (2011): Administración de empresas: Un enfoque teórico práctica, Pearson.
- Bueno Campos, E. (1993): Curso básico de economía de la empresa. Ediciones Pirámide. Madrid.
- Torres López, J. (2011) "Introducción a la economía". Ediciones Pirámide. Madrid. 2011.
- Heyzer, J. y Render, B. (2007): Dirección de la producción y de operaciones. Decisiones tácticas. Ediciones Pearson. Madrid. 8ª Edición.