COURSE GUIDE

Course Data	
Name	**Business Economics**
Code	**DOI-GITT-322**
Degree	**Grado en Ingeniería en Tecnologías de Telecomunicación**
Year	**3º**
Semester	**2º**
ECTS Credits	**4.5 ECTS**
Type	**Elective**
Department	**Industrial Engineering**
Area	**Economics and Business Administration**
Coordinator	**Pedro Linares**

Information of Professors	
Professor	
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SPECIFIC INFORMATION OF THE COURSE

Course context
Contribution to the professional profile of the degree
This course introduces the student to the basic concepts of economic theory, financial and cost accounting, developing further those aspects more relevant to industrial engineering. The course is therefore introductory, presenting the fundamental topics of economics, finance and cost accounting which can be later developed at the Masters level.
During the course students will learn how to understand and solve microeconomics problems, to produce financial statements, and to determine the production cost of firms.
Pre-requirements
Basic knowledge of algebra and calculus

CONTENTS

Contents
MODULE 1: Basic concepts
1: SCARCITY AND CHOICE.
1.1. The problem of scarcity 1.2. The problem of choice: what, how and for whom to produce 1.3. Choice mechanisms: markets, governments, mixed economies 1.4. Difficult choices: market failures and government failures 1.5. Economic science: micro vs macro; theory vs reality
MODULE 2: Microeconomics
2: SUPPLY AND DEMAND
2.1. The market: Participants and interactions 2.2. Demand: individual and market demand, determinants, shifts and movements 2.3. Supply: individual and market supply, determinants, shifts and movements 2.4. Equilibrium, surplus and shortages 2.5. Changes in equilibrium: price ceilings and floors
3: CONSUMER DEMAND
3.1. The demand curve and utility theory 3.2. Price elasticity and its determinants
4: SUPPLY DECISIONS
4.1. The production function 4.2. Costs of production 4.3. Supply horizons: short and long term 4.4. Economic vs accounting costs
5: THE MARKET (I): PERFECT COMPETITION
5.1. Market structure 5.2. Perfect competition 5.3. The firm's production decision 5.4. Profit maximization 5.5. Supply behavior: individual and market **5.6.** Industry entry and exit
6. THE MARKET (II): IMPERFECT COMPETITION
6.1. Monopoly: structure, behavior, barriers to entry 6.2. Other non-competitive markets: duopoly, oligopoly, monopolistic competition 6.3. Reasons for market power: R&D, economies of scale, natural monopoly, contestable markets
7. MARKET FAILURES
7.1. Market failures 7.2. Public goods 7.3. Externalities 7.4. Market power 7.5. Inequity 7.6. Macro instability

MODULE 3: Financial accounting

8: FINANCIAL ACCOUNTING

- 8.2 The firm as an economic agent.
- 8.3 Roles of the firm.
- 8.4 Types of firm.
- 8.5 Legal framework.
- 8.6 Organization of the firm.
- 8.7 Nature and purpose. Rules and regulations
- 8.8 Recording data: The accounting equation. Accounts. Bookkeeping. Double entry
- 8.9 Basic financial reporting. Regularization: inventories, depreciation, accruals, value correction

MODULE 4: Management accounting

9: MANAGEMENT ACCOUNTING

- 9.1 Nature and purpose. Classification of costs
- 9.2 Direct costs. Materials. Labor. Other direct costs
- 9.3 Indirect costs. Product and period indirect cost (criteria and accrual systems). Activity-based costs (ABC)
- 9.4 Margin of safety. Fixed and variable costs. Break-even point.

Competences – Learning Results

Competences

Basic and General Competences

CG02.	Knowledge, understanding and ability to apply the norms required during the development of the profession of Technical Engineer of Telecommunications.
CG05.	Knowledge to perform measurements, calculations, valuations, studies, reports, work plans and similar tasks in the specific area of telecommunications.
CG08.	Know and apply basic concepts of economics and human resources management, project organization and planning, as well as legislation, regulation and normalization of telecommunications.

Specific Competences

CFBT5.	Appropriate knowledge of the concept of the firm, its institutional and legal setting. Business organization and administration
CRT1.	Ability to learn autonomously new knowledge and techniques appropriate for the conception, development or exploitation of telecommunication systems and services.

Learning Results

At the end of the course the student must have achieved the following outcomes:

RA1. Understands what is a firm and its role in the economic cycle.

RA2. Identifies and distinguishes between different types of firms, from an organizational and legal point of view.

RA3. Understands Economics as the science of choice.

RA4. Understands the fundamental economic problems of society: what, how, and for whom to produce.

RA5. Understands the concept of production-possibility frontier (PPF).

RA6. Understands the concept of economic system and the roles played by the Government and the market.

RA7. Understands the concept of market and the different types that exist.

RA8. Understands the concepts of supply and demand, both of the individual and of the market.

RA9. Understands the difference between moving along a demand (supply) curve and shifting of a curve.

RA10. Understands the concept of market equilibrium.

RA11. Understands the disequilibriums generated by Government interventions (setting maximum and minimum prices).

RA12. Analyzes and understands the concepts of total and marginal utility.

RA13. Understands the relevance and concept of demand elasticity.

RA14. Understands the concept of production function.

RA15. Understands the difference between short and long term in production and costs.

RA16. Understands economies of scale in terms of performance and average cost.

RA17. Understands the structure of the market (monopoly, oligopoly, perfect competition) as a determinant of its outcome.

RA18. Understands the relationship between the amount to be produced, marginal income, marginal cost, and profit.

RA19. Analyzes the conditions for a perfectly competitive market.

RA20. Explains the relationship between variable costs, equilibrium and exit.

RA21. Knows and analyzes the conditions of imperfect competition markets.

RA22. Analyzes the conditions required to achieve an efficient market outcome.

RA23. Explains the presence of market failures and the concept of externality.

RA24. Knows why we need firms, and what is their role as economic agents.

RA25. Has a basic understanding of the types of firms.

RA26. Understands the nature, purpose and basic rules of financial accounting

RA27. Understands the concept of annual accounts and their elaboration.

RA28. Understands the equilibrium between the use and provision of resources.

RA29. Understands the concept of cost and its different types.

RA30. Determines the cost of an industrial product using different methods.

RA31. Understands the concept of break-even point and determines from it the price of a product.

TEACHING METHODOLOGY

General methodological aspects of the course
In order to achieve the learning objectives stated above, the course will focus on the students' activity and on their active learning. Therefore, the methodology will be oriented towards a more active role of the student.

Classroom Methodology: Activities	Competences
1. Lectures: the instructor will start from the description of a real situation in which an economic or accounting problem is present. This situation may be introduced by the instructor or proposed by the students. Then the situation will be discussed, and the economic concepts and tools required to address it will be introduced and explained. This will help students learn to identify the basic elements of an economic or accounting issue, how to analyze it, and how to solve it.	CG02, CG05, CG08, CFBT5, CRT1
2. Problem solving / Case discussion: In these sessions tasks previously given to students (problems and case studies) will be discussed, solved and explained. In order to participate in these sessions the student must hand in previously the task	CG02, CG05, CG08, CFBT5, CRT1

Non-Classroom Methodology: Activities	Competences
The objective of non-classroom activities is to understand the concepts and methodologies described in class, and to apply them to the different problems or case studies presented in the classroom or given by the instructor.	
1. Individual and group study of the concepts, methodologies and techniques learnt during the lectures 2. Problem solving 3. Case analysis and preparation	CG02, CG05, CG08, CFBT5, CRT1
In addition, instructors will address the questions of students individually or in groups during their office hours, and will also help them orient their learning process	CG02, CG05, CG08, CFBT5, CRT1

EVALUATION ACTIVITIES AND CRITERIA

Evaluation activities	Evaluation Criteria	Weight Percentage
Tests: • Test 1(week 4) • Test 2(week 8) • Test 3(week 12) • Test 4 (week 15) • Final exam	- Understanding of concepts. - Application of concepts to problem solving. - Analysis and interpretation of problem results. - Quality of writing and overall presentation.	70% (12.5% each intermediate test, 20% final exam)
To be allowed to do the final exam, students must get at least 3.5 in at least two of the intermediate tests. To pass the final exam they must get at least 3 in all of the modules (Microeconomics, Financial Accounting, and Management Accounting. The minimum grade to pass the final exam is 5. Programmable calculators are not allowed in any of the tests or quizzes Cell phones, tablets or cameras are not allowed when reviewing tests.		
Problems and case studies given for out-of-classroom work	- Handing them in before the corresponding session	10%
Active participation in class	- Questions and comments in class	10%
Short video analyzing a real microeconomic problem, chosen by the student	- Degree to which students apply what they have learned to the analysis of a real situation	10%

Qualification Criteria
The final grade of the course will result from adding the following elements: • 70% from the grade in the tests and final exam. Each intermediate test will represent 12.5% of the final grade, and the final exam will weigh 20%. PROGRAMMABLE CALCULATORS ARE NOT ALLOWED IN INTERMEDIATE TESTS OR FINAL EXAMS. • 10% from handing in the problem sets and case studies given for out-of-classroom work. • 10% from the grade corresponding to participation in class. • 10% from the grade corresponding to the short video to be prepared. **Extraordinary session** The same criteria and weights are valid for the extraordinary session, except that the grade of the final exam will be replaced by the grade in the extraordinary exam.   Missing more than 15% of the classes may result in the student not being able to take the final exam in its first session.

WORK PLAN AND SCHEDULE[1]

In and out-of-class activities	Date/Periodicity	Deadline
• Reading and study of the materials, problem solving	After each session	
• Problem solving	Weekly	Weekly
• Tests and final exam preparation	Weeks 4, 8, 12, and 15	
• Short video of a microeconomic problem		Week 11

SUMMARY OF WORKING HOURS OF THE STUDENT			
CLASSROOM HOURS			
Lectures	**Problem solving**	**Tests**	
35	10	4	
NON-CLASSROOM HOURS			
Autonomous work – theory	**Autonomous work – problems**	**Test preparation**	
45	30	11	
		ECTS CRÉDITS:	**4.5 (135 hours)**

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[1] A detailed work plan of the subject can be found in the course summary sheet (see following page). Nevertheless, this schedule is tentative and may vary to accommodate the rhythm of the class.

BIBLIOGRAPHY AND RESOURCES

Basic References
Textbooks
Amat, O. (2010) *Finanzas para no financieros*. Gestión 2000
Dyson J.R. (2010) *Accounting for Non-accounting Students* (8th edition) Pearson
Mochón, F. (2010) *Principios de economía*. McGrawHill
Schiler, B. (2011) *Essentials of Economics* (8th edition) McGrawHill
Schiler, B. (2010) *Principios de economía* (6th edition) McGrawHill
Additional References
Textbooks
Begg, D., et al: *Economics* (10th edition) McGrawHill
Hall, R. E. y Lieberman, M. *Economics: Principles and Applications* (2nd edition) South Western
Harford, T. (2007) *The Undercover Economist*. Abacus
Mankiw, N. G. *Principles of Economics* (3rd edition) South Western
Walther, L. M. y Skousen, C. J. (2009) *Managerial and Cost Accounting*. www.bookboon.com
Walther, L. M. y Skousen, C. J. (2009) *The accounting Cycle.* www.bookboon.com
Walther, L. M. y Skousen, C. J. (2009) *Using Accounting information*. www.bookboon.com

Week	h/w	IN-CLASS ACTIVITIES			h/w	OUT-OF-CLASS ACTIVITIES			LEARNING
		LECTURE & PROBLEM SOLVING	LAB	ASSESSMENT		SELF-STUDY	LAB PREPARATION AND REPORTING	OTHER ACTIVITIES	Learning Outcomes
1	3	Presentation (1h)+ Chapter 1 (1h) +Chapter 2 (1h)			6	Chapter 1, Chapter 2	1.1, 1.2		RA1, RA2, RA3, RA4, RA5, RA6
2	3	Chapter 2 (1h) + Chapter 3 (2h)		Quiz Chapters 1-2 (10 min)	6	Chapter 2, Chapter 3	3.1, 3.2, 3.3		RA7, RA8, RA9, RA10, RA11, RA12, RA13
3	3	Chapter 4 (3h)			6	Chapter 4	3.1, 3.2, 3.3		RA14
4	3	Chapter 4 (2h)		Test Chapters 1-4 (1h)	6	Chapter 4	4.1, 4.2		RA15, RA16
5	3	Chapter 5 (3h)			6	Chapter 5	5.1, 5.2		RA17, RA18, RA19, RA20
6	3	Chapter 6 (3h)		Quiz Chapters 5-6 (10 min)	6	Chapter 6	6.1, 6.2		RA21
7	3	Chapter 7 (3h)			6	Chapter 7	7.1		RA22, RA23
8	1	Intersemester Test (Chapters 5-7)			8	Preparation of the Intersemester Exam			
9	3	Chapter 8 (3h)			6	Chapter 8		Video of a Microeconomics problem	RA24, RA25, RA26
10	3	Chapter 8 (3h)			6	Chapter 8	PB1, PB2	Video of a Microeconomics problem	RA26, RA27, RA28
11	3	Chapter 8 (3h)			6	Chapter 8	PB3, PB4, PB5	Video of a Microeconomics problem	RA26, RA27, RA28
12	3	Chapter 9 (2h)		Test Chapter 8 (1h)	6	Chapter 9			RA29
13	3	Chapter 9 (3h)			6	Chapter 9	PB1, PB2		RA30
14	3	Chapter 9 (3h)			6	Chapter 9	PB3		RA31
15	3	Course overview (3h)		Test Chapter 9 (1h)	6	All chapters			