SUBJECT TEACHING GUIDE

595 - Economic Analysis in Engineering

Master's Degree in civil Engineering, Canal and Port Engineering

Academic year 2023-2024

1. IDENTIFYING DATA				
Degree	Master's Degree in civil Engineering, Canal and Port Engineering		Type and Year	Compulsory. Year 1
Faculty	School of civil Engineering			
Discipline	ECONOMIC AND FINANCIAL ANALYSIS IN ENGINEERING			
Course unit title and code	595 - Economic Analysis in Engineering			
Number of ECTS credits allocated	4,5	Term	Semester based (1)	
Web				
Language of instruction	English		Mode of delivery	Face-to-face

Department	DPTO. ADMINISTRACION DE EMPRESAS
Name of lecturer	PEDRO DIAZ SIMAL
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Other lecturers	SAUL TORRES ORTEGA

3.1 LEARNING OUTCOMES
- Master the economic language applied to engineering, incorporating the tools of economic analysis into their discourse.
- Determine the advantages and disadvantages of different organisational models specific to companies.
- Compare different financial situations of the company, as well as investment possibilities, analysing their suitability and viability.
- Describe the functioning of the economic sectors closest to engineering and model the economic behaviour of the technical decisions of the company. economic behaviour of the technical decisions of the engineer. of the engineer.

4. OBJECTIVES

Master the economic language applied to engineering, incorporating the tools of economic analysis into their discourse.
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6. COURSE ORGANIZATION

CONTENTS	
1	Economics applied to engineering. Sectorial Economics. Micro and Macro Analysis. Input Output Analysis, National Accounts. Economic Growth
2	Economic engineering. Financial analysis and its application to engineering.analytical tools for decision-making. Risk analysis, decision theory, strategic game theory.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Class practice	Work	No	Yes	50,00
Exam	Written exam	Yes	Yes	50,00
TOTAL				100,00

Observations

In relation to the agreements adopted at the ordinary session of the School Board held on 10 June 2010, it is established that, with regard to the assessment activities that are recoverable,
-As a general criterion and unless otherwise specified in this guide, a student may only sit for the recovery of those activities that he/she has not passed, that is to say, those in which he/she has not obtained a minimum mark of five out of ten.
- As a general criterion and unless otherwise specified in this guide, in the recovery period the procedure for the evaluation of activity will be the same.
- As a general criterion and unless otherwise specified in this guide, in the recovery period the assessment procedure for an activity will be the same as that of the activity that gives rise to it. Note: According to Royal Decree RD 1125 /2003 on the European credit system and the grading system for official university degrees valid throughout the national territory , the results obtained by the student in each of the subjects of the syllabus will be graded according to the following numerical scale from 0 to 10, to one decimal place, to which the corresponding qualitative grade may be added: 0.0-4.9: Failure (SS). 5.0-6.9: Pass (AP). 7,0-8,9: Good (NT). 9.0-10: Outstanding (SB).
Given the uncertain situation that the social distancing measures established by the health authorities do not allow for any evaluation activity to be carried out in person in the classroom for all the students enrolled, these may be adapted to be carried out virtually, mainly through the use of the MOODLE platform.
If necessary, all the necessary precautions and actions will be taken to ensure the correct development of these activities.

Observations for part-time students

Part-time students will attend the exam and hand in the equivalent work, which will be adapted in terms of content and length.

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Principles of Economics: Timothy Taylor, Saint Paul, Minnesota Steven A. Greenlaw, Fredericksburg, Virginia Eric Dodge,Hanover, Indiana 2017, Publisher: OpenStax
Introduction to Business Lawrence J. Gitman Carl McDaniel Amit Shah Monique Reece Linda Koffel Bethann Talsma James C.Hyatt 2018 Publisher: OpenStax
Fundaments of Engineering Economics Chan S. Park Pearson Ed 2ª ed o later.