

SUBJECT TEACHING GUIDE

M1474 - Exploitation, Conservation and Maintenance of Public Works

Master's Degree in Civil Engineering

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Master's Degree in Civil Engineering			Type and Year	Compulsory. Year 2
Faculty	School of civil Engineering				
Discipline	Planning and Exploitation of Public Works				
Course unit title and code	M1474 - Exploitation, Conservation and Maintenance of Public Works				
Number of ECTS credits allocated	4,5	Term	Semester based (2)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	DANIEL CASTRO FRESNO				
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Other lecturers	FERNANDO CAÑIZAL BERINI LUIS MANUEL ACEBES ESCUDERO				

3.1 LEARNING OUTCOMES

- The student must be able to apply the acquired knowledge about the technical, economic and legislative environment of the construction, to the integral management of a public work (project, construction and operation), starting from the analysis of his project and contract of adjudication
- The student must know how to program technically and economically the construction, maintenance and conservation of a public work, optimizing times, construction costs and maintenance and conservation systems
- The student should be able to choose the machinery, facilities and constructive procedures suitable for the construction, maintenance and conservation of a public work
- The student must know the management systems of the exploitation, conservation and maintenance of public works

4. OBJECTIVES

The main objective of the course is to train the student to plan and manage the complete cycle of public works, from the early stages of planning, feasibility study, drafting and processing of the project, to its later phases of management of the construction process, Operation and maintenance.

6. COURSE ORGANIZATION

CONTENTS

1	Comprehensive management of the project and the construction of public works. Part one: Technical aspects in the construction and conservation of public works. 1.- Construction management: construction companies; Technical and economic planning of the works. 2.- Management of the execution of earthmoving and affirmed; Of foundations and elevations of structures. 3.- Management of the execution of large viaducts. 4.- Management of the execution of underground works and maritime works.
2	Comprehensive management of the project and the construction of public works. Part two: Legal and economic - financial aspects in the design, construction and operation of public works. 1.- Contracts of the public sector: common general aspects. 2.- The works contract; the construction management: quality and safety in the execution. 3.- Fiscal and financial aspects in the planning of public investments: financial and economic-social evaluation of investment projects. 4. Public-private participation in financing and exploitation: concessions for works and services; service contracts: practical examples. 5.- Management models in the exploitation of infrastructures and public services.
3	Comprehensive management of the project and the construction of public works. Part Three: Practical work in group of students consisting of the analysis of a concrete project and execution of the planning of the execution of the work. 1.- Presentation and objectives of the course practice. 2.- Practical applications and follow-up of students' work. 3.- Evaluation of the works.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Description Presential tests of the first two parts of the course	Written exam	Yes	Yes	60,00
Description Practical Work on the Integrated Management of the Project and the Construction of a Real Public Work Taken as a Model	Work	Yes	Yes	40,00
TOTAL				100,00
Observations				
<p>The subject consists of three parts, which will be evaluated independently: a) first part of the syllabus, weighing 25% of the total mark; B) second part of the syllabus, weighing 25% of the total grade and c) performing a group work, with a weight of 50% of the total grade.</p> <p>The subject may be approved by course (provided that the student has attended at least 75% of the total of the classes), if he obtains a minimum score of 4 points in each of the two exams of the first two parts of the subject , And a score of at least 4 points in the group work. In any case, the final grade, obtained by weighing the three grades as indicated, must be equal to or higher than 5 points.</p> <p>Students who do not approve the subject by course may submit to a recovery in the ordinary June call, and should in any case examine those parts with a rating lower than 4 points, and can do so in those with a grade equal to or higher than 4, And less than 5. For these purposes, recovery of the practice means the correct performance by the group of students, within the established deadlines, of the modifications indicated by the teacher responsible for the same. In any case, in order to pass the subject in the regular June examination, the student must have obtained a minimum grade of 4 points in each of the three parts, and his overall grade must be at least 5 points.</p> <p>Students who fail to pass the subject in the regular June examination may submit themselves to the special summons of September, under the same conditions and with the same effects set forth for the ordinary convocation .</p> <p>In the recovery period the evaluation procedure of an activity will be the same as that of the activity that originates it.</p> <p>Note: According to Royal Decree 1125/2003 on the European Credit System and Grading System in University degrees of official character and validity throughout the national territory , the results obtained by the student in each of the subjects of the curriculum will be graded according to the following numerical scale from 0 to 10, with expression of a decimal, a Which may be accompanied by a corresponding qualitative rating: 0.0-4.9: Suspended (SS) 5.0-6.9: Approved (AP) 7.0-8.9: Noteworthy 9.0-10: Outstanding (SB)</p>				
Observations for part-time students				
The student who follows the part-time course must submit to a single exam, which will consist of a 1st part (50%) in relation to the course follow-up tests, and a 2nd part (50%) in relation to the proposals For group work.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

APUNTES DE MAQUINARIA Y PROCEDIMIENTOS GENERALES DE CONSTRUCCIÓN. Propuestos por los profesores Jose Antonio Rodríguez Gonzalez y Luis Acebes Escudero .E.T.S .I de Caminos de Santander.

Apuntes de la asignatura: Contratación pública; Direcciones de obra; Evaluación de proyectos de inversión.- F. Cañizal

MAQUINARIA Y MÉTODOS MODERNOS EN CONSTRUCCIÓN.

Frank Harris. Instituto Politécnico de Wolverhampton. Gonzalo Navacerrada

•RÉGIMEN JURÍDICO DE LA CONSTRUCCIÓN Y EXPLOTACIÓN DE OBRAS PÚBLICAS.- Vega Labela y otros.- Ed. DAPP Publicaciones Jurídicas, 2012.

