SUBJECT TEACHING GUIDE

G989 - Fluid Mechanics

Degree in Industrial Electronic Engineering and Automatic Control Systems

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Degree in Industrial Electronic Engineering and Automatic Control Systems			Type and Year	Compulsory. Year 2
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Thermofluid Mechanics Module in Common with the Industrial Branch				
Course unit title and code	G989 - Fluid Mechanics				
Number of ECTS credits allocated	6	Term		Semester based (2)	
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIA ELECTRICA Y ENERGETICA
Name of lecturer	SEVERIANO FIDENCIO PEREZ REMESAL
E-mail	severiano.perez@unican.es
Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 3. DESPACHO PROFESOR (S3026)
Other lecturers	JORGE TOMAS CUELI LOPEZ JOSE SALMON GARCIA

3.1 LEARNING OUTCOMES
- Students will be able to apply the concepts of fluid mechanics necessary to carry out engineering projects
- It will be able to apply the concepts of fluid mechanics necessary for the design and improvement of hydraulic machinery

4. OBJECTIVES
Acquiring knowledge of the fundamentals of fluid mechanics to solve technical problems
Apply the theoretical basis of fluid mechanics to hydraulic machines
Knows the operating principles, structure and use of hydraulic machines

6. COURSE ORGANIZATION

CONTENTS	
1	Introduction to fluid mechanics hydrostatic Kinematics and Dynamics of fluids Calculation of pipes and channels External flow, Water hammer and cavitation

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Classroom assessments	Work	No	Yes	40,00
Laboratory practices	Others	No	No	10,00
Examination of practical theoretical contents of the subject	Written exam	Yes	Yes	50,00
TOTAL				100,00

Observations

Students who renounce continuous assessment can make up the subject in the ordinary and extraordinary exam sessions (theory, problems and laboratory exam).
The remote evaluation of the works, practical laboratory exercises and written tests is foreseen, in the case of a new health alert by COVID-19 making it impossible to carry out the evaluation in person.
No grade earned for subsequent courses is saved.
It is expected that in the event that the health and / or educational authorities do not allow the final exam of the subject in person, this will be done through the Moodle platform. To do this, students must have a computer and internet connection on the day of the exam.

Observations for part-time students

Part-time students who do not attend classes will be assessed for the entire subject in ordinary and extraordinary calls (theory, problems and laboratory exam)

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Mecánica de Fluidos y Máquinas Hidráulicas; Claudio Mataix; Ed. Oxford
Ingeniería Fuidomecánica; N. Garcia Tapia; Universidad de Valladolid
Mecánica de Fluidos e Hidráulica; R.V. Giles; Ed. McGrawhill
Mecánica de Fluidos Aplicada; R. Mott; Ed. Prentice Hall
Mecánica de Fluidos; A. Crespo; Ed. Thomson
Mecánica de Fluidos; F. White; Ed. McGrawhill