

## SUBJECT TEACHING GUIDE

G860 - Fluid Mechanics

Degree in Electrical Engineering

Academic year 2022-2023

1. IDENTIFYING DATA					
Degree	Degree in Electrical Engineering			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	G860 - 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	<p>Introduction to fluid mechanics</p> <p>hydrostatic</p> <p>Kinematics and Dynamics of fluids</p> <p>Calculation of pipes and channels</p> <p>External flow,</p> <p>Water hammer and cavitation</p>
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## 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
<b>TOTAL</b>				<b>100,00</b>
<b>Observations</b>				
<p>Students who renounce continuous assessment can make up the subject in the ordinary and extraordinary exam sessions (theory, problems and laboratory exam).</p> <p>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.</p> <p>No grade earned for subsequent courses is saved.</p> <p>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.</p>				
<b>Observations for part-time students</b>				
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

<b>BASIC</b>
Mecánica de Fluidos y Máquinas Hidráulicas; Claudio Mataix; Ed. Oxford
Ingeniería Fluidomecánica; 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

