

## SUBJECT TEACHING GUIDE

### G449 - MATHEMATICS II

#### First Degree in Nautical Engineering and Maritime Transport

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	First Degree in Nautical Engineering and Maritime Transport			Type and Year	Core. Year 1
Faculty	School of Maritime Engineering				
Discipline	Subject Area: Mathematics Basic Training Module				
Course unit title and code	G449 - MATHEMATICS II				
Number of ECTS credits allocated	6	Term	Semester based (2)		
Knowledge Field					
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION				
Name of lecturer	TOMAS MARTIN HERNANDEZ				
E-mail	tomas.martin@unican.es				
Office	E.T.S. de Náutica. Planta: + 2. DESPACHO (234)				
Other lecturers					

#### 4. OBJECTIVES

Know and handle the basic topics of mathematical analysis necessary for the mathematical modeling of basic scientific and technical problems with implications to engineering

**6. SUBJECT PROGRAM**

CONTENTS

1	Real numbers and complex numbers. Absolute and relative error. First properties.
2	Analysis Calculus: Limits. Continuity. Differential calculus in one and two variables. Integration calculus in one and two variables. Differential equations with constant coefficients.
3	Astronomical positioning and loxodromic navigation.
4	Binomial distribution, Poison distribution and Normal distribution.

**7. ASSESSMENT METHODS AND CRITERIA**

Description	Type	Final Eval.	Reassessn	%
First exam	Written exam	No	Yes	35,00
Questionnaires and class assignments	Activity evaluation with Virtual Media	No	No	29,00
Final exam	Written exam	Yes	Yes	36,00
TOTAL				100,00
Observations				
Observations for part-time students				
The part-time student enrolled will have facilities in conducting virtual activities.				

**8. BIBLIOGRAPHY AND TEACHING MATERIALS**

BASIC

T. Martín: "Fundamentos Matemáticos". Ediciones TGD. Santander. 2016.