

## SUBJECT TEACHING GUIDE

### G1050 - Navigation II

#### Degree in Nautical Engineering and Maritime Transport

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Degree in Nautical Engineering and Maritime Transport			Type and Year	Compulsory. Year 2
Faculty	School of Maritime Engineering				
Discipline	Subject Area: Navegation				
Course unit title and code	G1050 - Navigation II				
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. CIENCIAS Y TECNICAS DE LA NAVEGACION Y DE LA CONSTRUCCION NAVAL				
Name of lecturer	JOSE IVAN MARTINEZ GARCIA				
E-mail	ivan.martinez@gestion.unican.es				
Office	E.T.S. de Náutica. Planta: + 2. DESPACHO PROFESOR (209)				
Other lecturers					

### 3.1 LEARNING OUTCOMES

- Astronomical navigation: Ability to determine the ship position using the celestial bodies.

### 4. OBJECTIVES

Celestial navigation. Ability to use celestial bodies to determine the ship's position.

**6. SUBJECT PROGRAM**

**CONTENTS**

1	Cosmography and timing: Astronomy.- The solar system .- The Earth.- The moon.- Other celestial bodies of the solarsystem.- Eclipses and occultations.- Study of the time.- Chronometers.
2	Astronomical navigation. Nautical Almanac.

**7. ASSESSMENT METHODS AND CRITERIA**

Description	Type	Final Eval.	Reassessn	%
Theoretical exam at the end of April.	Written exam	No	Yes	50,00
Astro navigation calculations exam.	Written exam	No	Yes	50,00
<b>TOTAL</b>				<b>100,00</b>
<b>Observations</b>				
The evaluation criteria of the competition are in line with the STCW Convention 2010. A remote assessment scenario may be presented, which would only be used if the competent health and educational authorities so indicate.				
<b>Observations for part-time students</b>				
Part-time students will agree with the teacher when to take the partial exams based on their availability.				

**8. BIBLIOGRAPHY AND TEACHING MATERIALS**

<b>BASIC</b>
Moreu Curbera/ Martínez Jiménez: Astronomía y Navegación, Tomos I y III Librería San José, Vigo. Almanaque Náutico, Armada Española, Servicio de Publicaciones. Bowditch: American Practical Navigator, Defense Mapping Agency Hydrographic Center, Washington D.C., U.S. Anuario de Mareas. Instituto Hidrográfico de la Marina. Armada Española, Servicio de Publicaciones. Tablas de Navegación de Martínez Jiménez
Ibáñez Fernández, Itsaso; Fundamentos de Navegación Marítima.
Ibáñez Fernández, Itsaso; Navegación Astronómica: Compendio y Cálculos,
Mederos Martín, Luis; Navegación Astronómica.