

SUBJECT TEACHING GUIDE

G1056 - Ship Theory and Naval Construction III

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 3
Faculty	School of Maritime Engineering				
Discipline	Subject Area: Ship Theory and Naval Construction				
Course unit title and code	G1056 - Ship Theory and Naval Construction III				
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	TOMAS O'CALLAGHAN DIAZ				
E-mail	tomas.ocallaghan@unican.es				
Office	E.T.S. de Náutica. Planta: + 2. DESPACHO (212)				
Other lecturers	FELIPE COLL TORRES				

3.1 LEARNING OUTCOMES
- Learn to resolve the ship handling situations and how they affect the ship structure like loading and grounding . Understanding the effects of waves on ship motions and how to control them . Understanding of principles of ship drag and propulsion.
- Knowledge for loading and securing cargo on board.

4. OBJECTIVES
Get a deeper understanding of Ship Theory regarding ships structure and motions.
Knowledge of regulations and calculation techniques.

6. SUBJECT PROGRAM	
CONTENTS	
1	Part 1. RESISTANCE AND PROPULSION. Understanding fluid dynamics, drag and propulsion systems.
2	Part 2. Ship Theory: Grounding
3	Part 3. SHIP DYNAMICS, VIBRATIONS AND SEAKEEPING.
4	Part 4. Ship Handling for mariners: Longitudinal Strength of ships.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
EXAM PART 1	Written exam	No	Yes	20,00
EXAM PART 2.	Work	No	Yes	30,00
EXAM PART 3	Written exam	No	Yes	20,00
EXAM PART 4.	Others	No	Yes	30,00
TOTAL				100,00
Observations				
Observations for part-time students				
For part time students presence may not be mandatory.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Ship Dynamics For Mariners. I.C. Clark
Stability, Trim and Strength for merchant and fishing vessels. I.C. Clark.
Hydrodynamics of High - Speed Marine Vehicles. Odd M. Faltinsen