



Information about the subject

Degree: Bachelor of Science Degree in Marine Sciences

Faculty: Faculty of Veterinary Medicine and Experimental Sciences

Code: 270213 **Name:** Maritime Engineering

Credits: 6,00 **ECTS Year:** 2 **Semester:** 1

Module: Optional Itinerary: Marine Environment Management

Subject Matter: Marine Engineering **Type:** Elective

Department: Oceanography and Environment

Type of learning: Classroom-based learning

Languages in which it is taught:

Lecturer/-s:



Module organization

Optional Itinerary: Marine Environment Management

Subject Matter	ECTS	Subject	ECTS	Year/semester
Marine Environment Geography	6,00	Geography of the marine environment	6,00	2/1
Marine Engineering	6,00	Maritime Engineering	6,00	2/1
Evaluation of Environmental Impact	6,00	Assessment of Environmental Impact	6,00	This elective is not offered in the academic year 21/22
Natural and Anthropic Risks in the Marine Environment	6,00	Natural and Anthropic Risks in the marine environment	6,00	This elective is not offered in the academic year 21/22
Environmental Education	6,00	Environmental Education	6,00	2, 3, 4/1
Renewable Energies and Marine Mineral Resources	6,00	Renewable energies and marine mineral resources	6,00	2/1

Recommended knowledge

Not contemplated



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 He knows the main mechanisms of wave propagation.
- R2 The student knows the main mechanisms that regulate the transport of sediments.
- R3 The student knows the hard and soft measures of coastal protection.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC	Weighting			
	1	2	3	4
CB2			X	
CB3			X	
CB5			X	

GENERAL	Weighting			
	1	2	3	4
CG1		X		
CG2		X		
CG3			X	
CG5		X		
CG6			X	
CG7		X		
CG8			X	
CG10		X		



CG11	Capacity to learn				X
CG12	Capacity to adapt to new situations				X
CG16	Capacity to apply theoretical knowledge				X
CG17	Research skills		X		
CG18	Sensibility to environmental issues.				X

SPECIFIC		Weighting			
		1	2	3	4
CE1	Knowing and understanding contents, principles and theories related to Oceanography			X	
CE2	Knowing basic sampling techniques of water column, organisms, sediment and sea-bottoms as well as basic techniques of dynamic and structural variable measurement		X		
CE4	Understanding laws regulating use of marine resources and environment			X	
CE5	Applying marine environment use planning techniques as well as resource sustainable management			X	
CE6	Applying marine instrument techniques			X	
CE7	Collecting, assessing, processing and interpreting oceanographic data, following the most recent theories			X	
CE8	Identifying and analyzing new problems and proposing solution strategies			X	
CE9	Knowing how to carry out experiments and measurements both in the laboratory and during sample collection			X	
CE10	Knowing how to use planning, designing and implementing research tools while surveying and assessing results			X	
CE11	Knowing how to do fieldwork and laboratory experiments in a safe and responsible way, promoting teamwork		X		
CE12	Describing, classifying and mapping sea bottoms and coastal areas			X	



CE13	Looking for and assessing different kinds of marine resources			X
CE14	Designing patterns of marine protected areas management			X
CE15	Identifying and proposing monitoring means for problems of marine pollution			X
CE16	Proposing management models for endangered species recovery centers	X		
CE17	Developing training programs for marine and coastal areas			X
CE18	Practical experience of researching into marine climate	X		
CE19	Deeply understanding operating systems of maritime orientated companies, identifying their problems and proposing solutions			X
CE22	Practical experience of methods of marine environmental impact assessment			X

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3	50,00%	Written test with theoretical and practical questions
R1, R2, R3	40,00%	Delivery of guided assignments, whose objectives and contents will be proposed by the teacher
R1, R2, R3	10,00%	Oral presentation

Observations



MENTION OF DISTINCTION:

According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 ("Sobresaliente"). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge.
- M2 Group work sessions supervised by the professor. Case studies, diagnostic tests, problems, field work, computer room, visits, data search, libraries, on-line, Internet, etc. Meaningful construction of knowledge through interaction and student activity.
- M4 Supervised monographic sessions with shared participation.
- M5 Application of multidisciplinary knowledge.
- M6 Personalized and small group attention. Period of instruction and/or guidance carried out by a tutor to review and discuss materials and topics presented in classes, seminars, readings, papers, etc.
- M8 Set of oral and/or written tests used in initial, formative or additive assessment of the student.
- M9 Group preparation of readings, essays, problem-solving, seminars, papers, reports, etc. to be presented or submitted in theoretical, practical and/or small-group tutoring sessions. Work done on the university e-learning platform (www.plataforma.ucv.es)
- M10 Student's study: Individual preparation of readings, essays, problem-solving, seminars, papers, reports, etc. to be presented or submitted in theoretical, practical and/or small-group tutoring sessions. Work done on the university e-learning platform (www.plataforma.ucv.es).



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
ON-CAMPUS CLASS M1	R1, R2, R3	36,00	1,44
PRACTICAL CLASSES M2	R1, R2, R3	16,00	0,64
SEMINAR M4	R1, R2, R3	2,00	0,08
GROUP PRESENTATION OF ASSIGNMENTS M5	R1, R2, R3	2,00	0,08
TUTORIAL M6	R1, R2, R3	2,00	0,08
ASSESSMENT M8	R1, R2, R3	2,00	0,08
TOTAL		60,00	2,40

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK M9	R1, R2, R3	10,00	0,40
INDEPENDENT WORK M10	R1, R2, R3	80,00	3,20
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
CONTENTS	Wave Propagation; Sediment transport; Protection of coasts; Embankment dykes; Vertical dykes.

Temporary organization of learning:

Block of content	Number of sessions	Hours
CONTENTS	30,00	60,00

References

- 1.- Dean, R. G., Dalrymple, R. A. Coastal processes with engineering applications. Cambridge University Press. 2004.
2. Doménech, Juan L. Gestión integrada de zonas costeras. AENOR Ediciones.
- 3.- Dean, R.G., Dalrymple, R.A. Water wave mechanics for engineers and scientists. World Scientific. 1984.
- 4.- Svendsen, Ib. A. Introduction to nearshore hydrodynamics. World Scientific. 2005.
- 5.- Spellman F.L., Handbook of Water and Wastewater Treatment Plant Operation ,CRC Press 2009.