

STUDY GUIDE

Land-Sea-Ocean Interactions: From Coastal Management to Maritime Spatial Planning

Originally developed in the context of Creative Commons education materials created by the TRASMARES ERASMUS+ project (2019-1-ES01-KA203-065536, “Specialized training on applied tools for sustainable marine ecosystems”), coordinated by the University of Cantabria (UC).

Organised by

University of Cantabria (UC)

1. IDENTIFYING DATA.		
• Course Name.	Land-Sea-Ocean Interactions: From Coastal Management to Maritime Spatial Planning.	
• Coordinating University.	University of Cantabria (UC).	
• Partner Universities Involved.	-	
• Course Field(s).	Sustainability	
• Related Study Programme.	Transdisciplinary course, open to students from any study programme.	
• ISCED Code.	051101. Biology 053201. Marine sciences 071201. Environmental engineering 073202. Civil engineering	
• SDG.	SDG 04. Quality education SDG 13. Climate action SDG 14. Life below water	
• Study Level.	MECU 7 (Master or 240 ECTS Degree)	
• EUNICE Key Competencies	Problem solving	Strongly
	Teamworking	NOT AT ALL
	Communication	NOT AT ALL
	Self-management	Strongly
	Cognitive flexibility	Partially
	Digital competence	Strongly
	Technical competence	Strongly
	Global intercultural competence	NOT AT ALL

• Number of ECTS credits allocated.	2 ECTS.
• Mode of Delivery.	Online self-study.
• Language of Instruction.	English, with subtitles in Spanish, Italian and Portuguese
• Course Dates.	03.10.2025 – 19.12.2025 (October 3 rd , 2025 – December 19 th , 2025).
• Precise Schedule of the Lectures.	The course can be attended from the beginning of October until the mid of December 2025 at any time. Course materials and assessment forms are fully online and can be checked at any point. Lectures are asynchronous and can be reviewed at any time.

• Key Words.	Ecosystem-based management, Integrated Coastal Zone Management, Maritime Spatial Planning, multiuse
• Catchy Phrase.	Sustainable development and growth in the maritime sector require the integration of economic, social and environmental approaches.

• Prerequisites and co-requisites.	No previous requirements established.
• Number of EUNICE students that can attend the Course.	Unlimited.
• Course inscription procedure(s).	Course inscription through the EUNICE MOOC platform available here. The course is free of charge.

2. CONTACT DETAILS.

• Department.	Environmental Hydraulics Institute (IHCantabria).
• Name of Lecturer.	Prof. José A Juanes (Coordinator), Bárbara Ondiviela (Director)
• E-mail.	ondiviela@unican.es
• Other Lecturers.	<p>Academic staff from UC-IHCantabria:</p> <ul style="list-style-type: none"> • Dr. Carlos Vinicius • Dr. Elvira Ramos • MsC. María Merino <p>International advisors from TRASMARES project:</p> <ul style="list-style-type: none"> • Prof. Laura Airoidi (University of Padova) • Dr. Joao Neto (University of Coimbra) <p>External contributors of CC materials from the TRASMARES project:</p> <ul style="list-style-type: none"> • Prof. Javier Sanz (Univ. A Coruña) • Prof. Marta García (Univ. A Coruña)

3. COURSE CONTENT.

Teaching materials of this MOOC were co-created, under creative commons licence, in the TRASMARES project “Specialized training on applied tools for sustainable marine ecosystems”, funded by the EU ERASMUS+ programme (2019-1-ES01-KA203-065536, 2019-22) and developed through the collaboration of academics and researchers from the Environmental Hydraulics Institute of the University of Cantabria, coordinator of the project, the University of Bologna and the University of Coimbra.

This course reviews the legal framework that applies to the oceans, from the Romans to the present day, the main approaches and fundamentals that form the basis of marine and coastal management, as well as the most relevant aspects for the design and implementation of coastal zone management plans. It also presents the IOC-UNESCO approach to marine spatial planning and the main phases and steps to address new and emerging actions related to ecosystem-based ocean management.

4. LEARNING OUTCOMES.

Students will learn about the development and application of marine spatial planning processes around the world and gain a detailed understanding of some of the most innovative methodologies and tools available for marine and coastal management.

5. OBJECTIVES.

This course aims at presenting the legal framework that regulates the development of different activities in the coast and marine zone, using the analysis of some of the most representative coastal management tools and practical cases of real application throughout the world.

6. COURSE ORGANISATION.

UNITS

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| 1. | Legal framework: from the Romans to the present day. |
| 2. | Conceptual framework. |
| 3. | Integrated Coastal Zone Management (ICZM). |
| 4. | Marine spatial planning processes. |
| 5. | Marine spatial planning in practice. |

LEARNING RESOURCES AND TOOLS.

The learning resources and assessment tools of the course are available at the EUNICE Moodle platform.

PLANNED LEARNING ACTIVITIES AND TEACHING METHODS.

Students will have access to video materials, written course contents, and automatic online evaluation tests in EUNICE Moodle online environment. Students can review the materials and do the assessments at their own pace during the period of course delivery since. The course is asynchronous and can be reviewed at any time. Students' activity in EUNICE Moodle is expected to consist of the following:

- Watching the video materials available on the course site.
- Reading and familiarisation with the text materials available on the course site.

- Taking the evaluation tests that measure students' knowledge and skills in content areas.

The course is completed by independently working and by taking the exams which consists of multiple-choice questions covering the course topics. The course is graded "passed" or "failed".

As an additional optional activity, each sub-topic will have a forum for students to share their questions, discussions or doubts. It will be moderated by the UC-EUNICE Office, with input from professors when necessary. All students are free to participate and post their queries.

7. ASSESSMENT METHODS, CRITERIA AND PERIOD.

To complete the course, you must:

- View the materials in each Module, going through all Sub-Topics.
- Correctly answer at least 50% of each of the Automatic Online Assessments.
- Complete the post-survey of the course. This will take approximately 3 minutes. We need the data to issue your Certificate (free of charge) and for justification purposes.

Upon fulfillment of the course completion criteria, you will be able to download the Course Certificate directly from EUNICE Moodle platform.

OBSERVATIONS.

8. BIBLIOGRAPHY AND TEACHING MATERIALS.

Teaching materials are available on the course at the dedicated EUNICE Moodle platform. Literature recommendations are also outlined in the course contents.