

1.Sectors of Blue Economy I

COURSE OUTLINE

GENERAL

SCHOOL	Maritime and Industrial Studies		
ACADEMIC UNIT	Maritime Studies		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE		SEMESTER	2
COURSE TITLE	Sectors of Blue Economy I		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY	CREDITS
<i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		TEACHING HOURS	
Lectures		3	7.5

Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).

COURSE TYPE	General knowledge
<i>general background, special background, specialised general knowledge, skills development</i>	
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	

LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

Upon successful completion of the course, postgraduate students will

- Understand the value of the Ocean
- Be able to apply the ecosystem services methodology
- Be aware of the sustainable blue economy concept
- Know the importance of keeping the Global Ocean safe

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

*Search for, analysis and synthesis of data and
information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work*

*Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and
sensitivity to gender issues
Criticism and self-criticism*

Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas

Production of free, creative and inductive thinking
.....
Others...
.....

Individual work
Teamwork
Decision-making
Respect for the natural environment
Adaptation to new situations
Promotion of free, creative, and inductive thinking
Work in an interdisciplinary environment

Project planning and management

SYLLABUS

- The Blue Growth concept: Established, emerging, unborn marine industries. Sustainable development and blue growth.
- Maritime zones defined by the UN Convention on the Law of the Sea.
- Coastal and marine tourism: Definitions. Ecotourism. Tourism in the Mediterranean Sea. Environmental considerations of mass tourism. Benefits of sustainable coastal tourism. Socio-economic impacts.
- Aquaculture: Terminology. Environmental issues and concerns associated with marine aquaculture. Aquaculture risks. Integrated marine fish culture. Sustainable fish farming. The Mediterranean fish farming. The Greek aquaculture.
- Marine biotechnology: Marine derived products. Algal food products. Pharmaceuticals, marine derived medicines. Fuel and antifouling compounds from algae.
- Offshore energy: Offshore wind farms. Wave energy. Tidal energy. Ocean thermal energy conversion. Salinity gradient power generation. Case studies.
- Offshore oil drilling: Platforms categories. Potential environmental issues. Air emissions, Wastewaters. Waste management. Noise. Spills. NORM. Safety. Novel ecosystems.
- Seabed mining: Types of marine minerals. Deep-sea minerals occurrence. Placer deposits. ISA. Environmental impacts. Current and future trend. Case studies.
- Blue Growth sectors and water depth. Interactions and conflicts among blue growth sectors.
- Blue growth and ecosystem services.

TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p> <p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p> <p>TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p>Distance learning.</p> <p>Use of computers and the Internet.</p> <p>Support of the learning process through the ms-teams online platform.</p>										
<p>STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>25</td></tr> <tr> <td>Project</td><td>50</td></tr> <tr> <td>Study</td><td>112.5</td></tr> <tr> <td>Course total</td><td>187.5</td></tr> </tbody> </table> <p>Written final exam (60%) in English.</p> <p>Project preparation, with submission of written report, oral presentation, and examination (40%).</p>	Activity	Semester workload	Lectures	25	Project	50	Study	112.5	Course total	187.5
Activity	Semester workload										
Lectures	25										
Project	50										
Study	112.5										
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ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

- ✓ Blue Economy Concept Paper, 'Sustainable Development Knowledge Platform, United Nations (UN), January 2014.
- ✓ European Commission (2020). The EU Blue Economy Report. 2020. Publications Office of the European Union. Luxembourg.
- ✓ Jouffray J-B, Blasiak R, Norström AV, Österblom H, Nyström M, 2020. The Blue Acceleration: The Trajectory of Human Expansion into the Ocean, One Earth, Volume 2, Issue 1, pp.43-54, ISSN 2590- 3322, <https://doi.org/10.1016/j.oneear.2019.12.016>
- ✓ Professor's power point presentations