

<i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>Others...</i>
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- To explain fundamental theoretical and empirical topics regarding marine ecosystem structure and function
- To critically evaluate the most pressing environmental issues in the marine environment
- To focus on maritime environmental issues and the evolving legislative framework
- To explore management options regarding international ocean governance always within the framework of an ecosystem approach
- To analyze the most important blue growth sectors and their economic potential
- To help students develop critical thinking and evaluation on all the above.

(3) SYLLABUS

<p>Week 1</p> <p>Value and vulnerability of Oceans and Coasts</p> <ul style="list-style-type: none"> • Ocean Biomes • Key ecosystem services <p>Reading Material:</p> <ul style="list-style-type: none"> • Heather M. L. et al. (2012): Why value the oceans? Discussion paper prepared by UNEP/GRID-Arendal and Duke University's Nicholas Institute for Environmental Solutions in collaboration with the UNEP TEEB Office and the UNEP Regional Seas Programme. • EEA Report / No2/2015. State of Europe's seas • Kaiser M. et al (2006). Marine Ecology. Processes, Systems and Impacts. Oxford Univ. Press. <p>Week 2</p> <p>Marine Conservation</p> <ul style="list-style-type: none"> • Marine Biodiversity • Sustainable management of marine resources • UN First Global Integrated Marine Assessment <p>Reading Material:</p> <ul style="list-style-type: none"> • Group of Experts of the Regular Process. (2016): The First Global Integrated Marine Assessment of the United Nations.. • Heip C. & McDonough N.. (2012): Marine Biodiversity, a science roadmap for Europe. Marine Board Future Science Brief 1, European Marine Board, Ostend Belgium. <p>Week 3</p> <p>Marine Protected Areas in Europe</p> <ul style="list-style-type: none"> • Understanding marine protected areas and their networks • Regional Sea Conventions • EU policy framework for marine protected areas <p>Reading Material:</p> <ul style="list-style-type: none"> • Reker J. et al. (2015): Marine Protected Areas in Europe's Seas. An overview and perspectives for the future. EEA Report no 3/2015. <p>Week 4</p> <p>Maritime Environmental Issues</p> <ul style="list-style-type: none"> • Environmental concerns and the role of IMO • Atmospheric emissions • Oil Pollution

Reading Material:

- Shipping and the Environment. Improving Environmental Performance in Marine Transportation (2016). Springer.
- Environmental Effects of Marine Transportation (2019). World Seas, an environmental evaluation. Vol.III, ecological issues and environmental impacts. Chpt. 30. Elsevier.
- OECD. (2016): The Ocean Economy in 2030, OECD Publishing, Paris
- Endresen O. et al. (2008). The Environmental Impacts of Increased International Maritime Shipping. OECD/ITF Global Forum on Transport and Environment in a Globalising World report.
- McGuire C & Perivier H. (2011): The Nonexistence of Sustainability in International Maritime Shipping, issues for consideration. J. Sust. Development v. 4, no 1.

Week 5

Marine Litter (microplastics) and Marine Noise

- Types of marine pollution
- Microplastics as a global threat
- Human footprint in the abyss

Reading Material:

- Reker J. et al. (2015). State of Europe's seas. EEA report no.2
- Albaiges R. P. et al. (2011): Chemical Pollution in Europe's Sea, Practices and Priorities for Research, European Marine Board Position Paper 16. Marine Board-ESF, Ostend Belgium.
- Andradý I. A. (2011). Microplastics in the marine environment. Marine Pollution Bulletin. 62, 1596-1605.
- Erbe et al. (2019). The effects of ship noise on Marine Mammals – A review. Frontiers in Marine Science. Vol. 6, article 606.

Week 6

Climate Change Impacts

- Role of oceans in climate variability
- Physical and biological responses and impacts
- Socio-economic implications

Reading Material:

- OECD. (2016): The Ocean Economy in 2030, OECD Publishing, Paris
- Anadon R. et al. (2007). Impacts of climate change on the European Marine and Coastal Environment. European Marine Board Paper 9.
- Heip C. et al. (2011). Synthesis of European Research on the effects of climate change on Marine Environments. European Marine Board Special Report.

Week 7

Ocean Governance

- International Ocean Governance
- Marine Governance in the Mediterranean Sea
- Sustainable use of the oceans

Reading Material:

- OECD. (2016): The Ocean Economy in 2030, OECD Publishing, Paris
- Kimball L. E. (2003). International Ocean Governance. Using international law and organizations to manage marine resources sustainably. IUCN, Gland, Switzerland and Cambridge, UK.
- Gilek M., Kern K. & contributors (2015). Governing Europe's Marine Environment: Europeanization of Regional Seas or Regionalization of EU policies? Ashgate Publishing.

Week 8

Blue Growth

- Blue growth and ocean governance
- The Blue Economy Concept
- Blue Growth Sectors

Reading Material:

- OECD. (2016): The Ocean Economy in 2030, OECD Publishing, Paris
- Ehlers P. (2016). Blue growth and ocean governance-how to balance the use and the protection of the seas. WMU J Marit Affairs, 15, 187-203.
- European Marine Board (2013). Navigating the future, Position paper 20.. European Marine Board Paper, Ostend, Belgium.

(4) TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;">DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	Face-to-face	
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	Use of ICT in Teaching and Laboratory Education Use of ICT in Communication with students: - Course's e-learning platform (messages, announcements) - E-mails	
<p style="text-align: center;">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-</i></p>	Activity	Semester workload
	Lectures, exercises & applications, laboratory exercises	24
	Self-study	101
	Course total	125

<i>directed study according to the principles of the ECTS</i>	
<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION</p> <p><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>	<p>The module will be assessed on the basis of two components:</p> <p>A) Individual performance (30%): class participation, assignments, cases, exercises, tests</p> <p>B) Written exams (70%): A 2-hour written exam test.</p>

(5) ATTACHED BIBLIOGRAPHY

<p>1. Main Textbook for the Course:</p> <p>Kimball L. E. (2003). International Ocean Governance. Using international law and organizations to manage marine resources sustainably. IUCN, Gland, Switzerland and Cambridge, UK.</p> <p>2. Support Textbooks:</p> <p>OECD. (2016): The Ocean Economy in 2030, OECD Publishing, Paris.</p> <p>Gilek M., Kern K. & contributors (2015). Governing Europe's Marine Environment: Europeanization of Regional Seas or Regionalization of EU policies? Ashgate Publishing..</p> <p>Endresen O. et al. (2008). The Environmental Impacts of Increased International Maritime Shipping. OECD/ITF report at the Global Forum on Transport and Environment in a Globalising World.</p> <p>Additional Course Material:</p> <ul style="list-style-type: none"> - Lectures Outline - Course Slides and Documentaries - Selected Problems Review <p>Academic Papers</p>
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