

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Business		
ACADEMIC UNIT	Department of Shipping, Trade and Transport		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	TE0023	SEMESTER	7 ^o
COURSE TITLE	Policies and Management for Environmental Protection		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	CREDITS	
Lectures	3	5	
COURSE TYPE	<i>Subject area course</i>		
PREREQUISITE COURSES:	<i>None</i>		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	<i>Greek and/or English in case an Erasmus student selects the course</i>		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	<i>Yes</i>		
COURSE WEBSITE (URL)	https://eclass.aegean.gr/courses/TNEY144/		

(2) LEARNING OUTCOMES

Learning outcomes
<p>The course "Management, Protection and Policies for the Environment" attempts a holistic approach on the environmental impacts of shipping. After successfully completing this course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the impact of shipping on the quality of the environment, with emphasis on current issues such as atmospheric pollution and greenhouse effect, transfer of non-native organisms with ballast water, ship recycling; and on more classic issues such as oil pollution, 2. Be able to justify the need to develop a regulatory framework or economic measures at international level to deal with the above effects and understand that the content of these measures is uniquely related to the phenomena they are attempting to address, 3. Know the key points of the regulatory framework and be able to recall them and use them in problems they will face in their work or academic course, 4. Understand the innovations on the design, technologies, and operation of ships in order to reduce their environmental impact on the environment.
General Competences
<ul style="list-style-type: none"> • Search for, analysis and synthesis of data and information, with the use of the necessary technology • Working in an interdisciplinary environment • Respect for the natural environment • Production of free, creative and inductive thinking

(3) SYLLABUS

<ul style="list-style-type: none"> • The evolution of maritime environmental policy and the role of IMO • Oil spills (sources, fate, response) • MARPOL 73/78 and OPRC • Ballast water management and BWM Convention • Pollution by antifouling paints and ASC • Atmospheric pollution (Annex VI of MARPOL, sulphur limits, SECAs, NOx limits, NECAs, new technologies and operational measures) • CO₂ emissions and greenhouse effect (Annex VI of MARPOL, EEDI, SEEMP, new technologies and operational measures) • Environmental management of ports

- Ship recycling

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY.	Face-to-face and Distance Learning	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	<ul style="list-style-type: none"> • Lectures using computer presentations and video • Support of learning and communication with the students using the e-learning platform e-class 	
TEACHING METHODS	<i>Activity</i>	<i>Semester workload</i>
	Lectures	39 hours
	Study and analysis of bibliography	25 hours
	Non-directed study	61 hours
	Course total	125 hours
STUDENT PERFORMANCE EVALUATION	<p>Language of evaluation: <i>Greek and/or English in case an Erasmus student selects the course</i></p> <p>At the end of the course, students will have a written final exam (100% of the rating).</p> <p>Types of questions: multiple choice questionnaires, short-answer questions, open-ended questions.</p>	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Kotrikla A.M. 2015. Shipping and the Environment, Repository for Greek Academic Electronic Textbooks, Hellenic Academic Libraries Link (in Greek), available at <https://repository.kallipos.gr/handle/11419/5478> (course handbook).
- Tselentis V., 2008. Management of marine environment and shipping, Stamouli publishing, Athens (in Greek).
- Andersson, K., Brynolf, S., Lindgren, F., & Wilewska-Bien, M. (Eds.). (2016). Shipping and the environment: improving environmental performance in marine transportation. Springer.
- IMO, 2003. MARPOL – How to do it, IMO, London.
- IMO, 2005. Ballast Water Convention, International Maritime Organization, London.
- IMO/UNEP, 1995. "IMO/UNEP guidelines on oil spill dispersant application including environmental considerations"; International Maritime Organization; United Nations Environment Programme.
- IMO, 2005. Manual on oil pollution: Combating oil spills, IMO, London
- Tan A. K.-J, 2006. "Vessel Source Marine Pollution. The Law and Politics of International Regulation", Cambridge University Press, Cambridge.

- Related academic journals:

[Marine Policy](#), [Maritime Policy and Management](#), [Transportation Research Part D: Transport and the Environment](#)