

COURSE OUTLINE

(1) General information

FACULTY/SCHOOL	Maritime and Industrial Studies		
DEPARTMENT	Maritime Studies		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	NAAΓΓ49	SEMESTER	Spring semester elective
COURSE TITLE	Field Work Studies in Environmental Management of Maritime Operations		
INDEPENDENT TEACHING ACTIVITIES <i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Teaching in the lecture room	2	6	
Teaching in the field (field work)	4		
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
COURSE TYPE <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	Scientific expertise, Skills Development		
PREREQUISITE COURSES:	NONE		
LANGUAGE OF INSTRUCTION:	ENGLISH		
LANGUAGE OF EXAMINATION/ASSESSMENT:	ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://eclass.unipi.gr/courses/NAS/		

(2) LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail.

It is necessary to consult:

APPENDIX A

- *Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.*
- *Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong*

<p><i>Learning and</i></p> <p>APPENDIX B</p> <ul style="list-style-type: none"> • <i>Guidelines for writing Learning Outcomes</i> 			
<p><i>After completing the course, students should be able to:</i></p> <ul style="list-style-type: none"> • <i>Know the methods and tools used in environmental monitoring in ports.</i> • <i>Critically approach the sampling and analysis methodologies</i> • <i>Describe the key features of the monitoring and how they are linked to organizational and management options</i> • <i>Describe the key features of the environmental impacts of port activities</i> • <i>Create matrices with basic activities and impacts</i> • <i>Assess the risk of port activities and how they fit into environmental monitoring</i> • <i>Answer questions related to short-term and long-term objectives set by port authorities based on the results of environmental monitoring</i> • <i>Analyse the different methods of environmental monitoring</i> • <i>Assess the benefits of environmental monitoring</i> • <i>Assess the range of environmental impacts based on the results of environmental monitoring</i> • <i>Experience in observations in the field in relation to sampling and environmental conditions</i> • <i>Experience in environmental data assessment and the drafting of environmental studies and reviews</i> 			
<p>General Competences</p> <p><i>Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?</i></p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p><i>Search for, analysis and synthesis of data and information by the use of appropriate technologies,</i></p> <p><i>Adapting to new situations</i></p> <p><i>Decision-making</i></p> <p><i>Individual/Independent work</i></p> <p><i>Group/Team work</i></p> <p><i>Working in an international environment</i></p> <p><i>Working in an interdisciplinary environment</i></p> <p><i>Introduction of innovative research</i></p> </td> <td style="vertical-align: top; width: 50%;"> <p><i>Project planning and management</i></p> <p><i>Respect for diversity and multiculturalism</i></p> <p><i>Environmental awareness</i></p> <p><i>Social, professional and ethical responsibility and sensitivity to gender issues</i></p> <p><i>Critical thinking</i></p> <p><i>Development of free, creative and inductive thinking</i></p> <p><i>.....</i></p> <p><i>(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i></p> <p><i>.....</i></p> </td> </tr> </table>		<p><i>Search for, analysis and synthesis of data and information by the use of appropriate technologies,</i></p> <p><i>Adapting to new situations</i></p> <p><i>Decision-making</i></p> <p><i>Individual/Independent work</i></p> <p><i>Group/Team work</i></p> <p><i>Working in an international environment</i></p> <p><i>Working in an interdisciplinary environment</i></p> <p><i>Introduction of innovative research</i></p>	<p><i>Project planning and management</i></p> <p><i>Respect for diversity and multiculturalism</i></p> <p><i>Environmental awareness</i></p> <p><i>Social, professional and ethical responsibility and sensitivity to gender issues</i></p> <p><i>Critical thinking</i></p> <p><i>Development of free, creative and inductive thinking</i></p> <p><i>.....</i></p> <p><i>(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i></p> <p><i>.....</i></p>
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<ul style="list-style-type: none"> • Goal analysis and prioritization • Group work • Design in environmental and general management • Exercise of critical thinking • Knowledge at practical level through fieldwork. • Promote free, creative and inductive thinking • Environmental awareness 			

(3) COURSE CONTENT

<ul style="list-style-type: none"> • Environmental sampling Systems • Marine water quality factors and parameters • Marine Environment Quality indicators • Institutional and legal framework for environmental monitoring • Organic port pollution • Microbiological port pollution • Physico-Chemical water parameters and their importance in environmental management • Oil pollution of ports and installations • Pollution from antifouling paints • Atmospheric pollutant measurements

- Noise measurements in port facilities
- Biological port pollution
- Special ecological evaluations of port projects
- Field work where in practice the sampling and analysis methodology of the samples is checked
- Laboratory Exercises

(4) TEACHING METHODS--ASSESSMENT

<p>MODES OF DELIVERY <i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i></p>	<p>Face-to-face, In-class lecturing Field Work</p>													
<p>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY <i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>														
<p>COURSE DESIGN <i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.</i></p> <p><i>The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</i></p>	<table border="1"> <thead> <tr> <th data-bbox="699 887 1027 913"><i>Activity/Method</i></th> <th data-bbox="1035 887 1361 913"><i>Semester workload</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="699 916 1027 943">Lectures</td> <td data-bbox="1035 916 1361 943">78</td> </tr> <tr> <td data-bbox="699 945 1027 972">Class study visit</td> <td data-bbox="1035 945 1361 972">25</td> </tr> <tr> <td data-bbox="699 974 1027 1001">Essay</td> <td data-bbox="1035 974 1361 1001">5</td> </tr> <tr> <td data-bbox="699 1003 1027 1030">Field work report</td> <td data-bbox="1035 1003 1361 1030">42</td> </tr> <tr> <td data-bbox="699 1032 1027 1059">TOTAL</td> <td data-bbox="1035 1032 1361 1059">150</td> </tr> </tbody> </table>		<i>Activity/Method</i>	<i>Semester workload</i>	Lectures	78	Class study visit	25	Essay	5	Field work report	42	TOTAL	150
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<p>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS <i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	<ul style="list-style-type: none"> • Written final exam (80%) in English language which includes problem solving and short answers to the evaluation of theory data • Individual laboratory work (5%) by submitting a short written report • Group work (15%) by submitting a written report, oral presentation and examination 													

(5) SUGGESTED BIBLIOGRAPHY:

-Suggested bibliography:

Shipping and the Environment, K. Andersson, F. Baldi, S. Brynoff, J.F. Lindgren, L. Granhag and E. Svensson Springer 2016

Notes and handouts by the teacher