

## COURSE OUTLINE

### (1) General information

<b>FACULTY/SCHOOL</b>	Maritime and Industrial Studies		
<b>DEPARTMENT</b>	Maritime Studies		
<b>LEVEL OF STUDY</b>	Undergraduate		
<b>COURSE UNIT CODE</b>	NA74	<b>SEMESTER</b>	3 <sup>rd</sup> Semester elective
<b>COURSE TITLE</b>	SHIPBUILDING INDUSTRY		
<b>INSTRUCTOR'S NAME</b>	Asst. Professor Peter J. Stavroulakis		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Lectures and coursework		4	6
Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4			
<b>COURSE TYPE</b> <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	General Knowledge		
<b>PREREQUISITE COURSES:</b>	None		
<b>LANGUAGE OF INSTRUCTION:</b>	Greek		
<b>LANGUAGE OF EXAMINATION/ASSESSMENT:</b>			
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	NO		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.unipi.gr/courses/NAS481/">https://eclass.unipi.gr/courses/NAS481/</a>		

### (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 Learning and

#### **APPENDIX B**

- Guidelines for writing Learning Outcomes

The course aims to familiarize students with the global shipbuilding industry, including the

ship repair and shipbreaking industries. An analysis is made of the main facilities and operations of a shipyard, and its organization as an innovative, sustainable, and competitive production unit. A multitude of case studies from around the world are presented, with special reference to the structure of the Greek shipbuilding industry. At the end of the course, students will be able to:

- Analyze the global shipbuilding industry
- Analyze the main characteristics of a shipyard, its departments, and the services it can offer
- Analyze the global shipbreaking industry
- Be able to prepare a shipyard business plan
- Conduct a comparative analysis between shipyards

### **General Competences**

*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>Search for, analysis and synthesis of data and information by the use of appropriate technologies,</i>	<i>Project planning and management</i>
<i>Adapting to new situations</i>	<i>Respect for diversity and multiculturalism</i>
<i>Decision-making</i>	<i>Environmental awareness</i>
<i>Individual/Independent work</i>	<i>Social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Group/Team work</i>	<i>Critical thinking</i>
<i>Working in an international environment</i>	<i>Development of free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment</i>	<i>.....</i>
<i>Introduction of innovative research</i>	<i>(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i>
	<i>.....</i>

- Search for, analysis and synthesis of data and information by the use of appropriate technologies
- Adapting to new situations
- Decision-making
- Individual/Independent work
- Group/Teamwork
- Working in an international environment
- Working in an interdisciplinary environment
- Introduction of innovative research
- Project planning and management
- Respect for diversity and multiculturalism
- Environmental awareness
- Social, professional, and ethical responsibility and sensitivity to gender issues
- Critical thinking
- Development of free, creative, and inductive thinking

### **(3) COURSE CONTENT**

- Structure of the global shipbuilding industry
  - Modern shipyards
  - Ship repair and maintenance
  - Shipbreaking
- Ancient shipbuilding / historical shipyards
- Shipyard case studies
  - North Korea and the big three
  - Japan

<ul style="list-style-type: none"> <li>○ US shipyards</li> <li>○ European shipyards</li> <li>○ Shipbuilding presence in Greece</li> <li>▪ Shipbuilding as a production process</li> <li>▪ Shipbuilding stages</li> <li>▪ Shipyard infrastructure, facilities, and equipment</li> <li>▪ The future of the global shipbuilding industry</li> </ul>
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#### (4) TEACHING METHODS--ASSESSMENT

<b>MODES OF DELIVERY</b> <i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i>	Face-to-face and provision for synchronous distance learning in cases of force majeure and/or extraordinary circumstances (as per Law 4957/2022, A76, Par. E)	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b> <i>Use of ICT in teaching, Laboratory Education, Communication with students</i>	<ul style="list-style-type: none"> <li>▪ Asynchronous e-class learning platform</li> <li>▪ Notes in pdf</li> <li>▪ PowerPoint presentations</li> <li>▪ Organization of in-depth courses and tutorial exercises via MS Teams</li> <li>▪ Guest lectures using MS Teams</li> </ul>	
<b>COURSE DESIGN</b> <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>  <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>	<b>Activity/Method</b>	<b>Semester workload</b>
	Lectures	48
	Tutorials	24
	Solving exercises and writing assignments	30
	Self-guided study	48
	<b>Total</b>	<b>150</b>
<b>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</b> <i>Detailed description of the evaluation procedures:   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>  <i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i>	Written final exam that includes (indicatively): <ul style="list-style-type: none"> <li>▪ Essay questions</li> <li>▪ Multiple choice questions</li> </ul>	

## (5) SUGGESTED BIBLIOGRAPHY:

### *Suggested bibliography*

- Ασφάλεια & Υγεία στις Ναυπηγικές και Ναυπηγοεπισκευαστικές εργασίες, Κωδικός Βιβλίου στον Εύδοξο: 86054362, Συγγραφείς: Τσαρακλής Ζαχαρίας, Αριθμός Έκδοσης 1<sup>η</sup>, Έτος Τρέχ. Έκδοσης 2019, ISBN 9789601100357, [Εκδόσεις συμμετρία](#)
- Βενετσάνος, Α., & Μάντζιου, Λ. (2024). Ναυπηγεία: Ακμή \_Επανάχρηση [Προπτυχιακό εγχειρίδιο]. Κάλλιπος, Ανοιχτές Ακαδημαϊκές Εκδόσεις. <http://dx.doi.org/10.57713/kallipos-390>
- [The Business of Shipbuilding](#)
- Lecture notes

### *International Journals*

- [International Shipbuilding Progress](#)
- [International Journal of Naval Architecture and Ocean Engineering](#)