

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Naval Architecture		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	NAOME1307	SEMESTER	1 st
COURSE TITLE	PRINCIPLES OF NAVAL ARCHITECTURE AND MARINE ENGINEERING		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS (ECTS)
Lectures		2	3
COURSE TYPE <i>general background, specialbackground, specialised general knowledge, skills development</i>	Specialised		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSEWEBSITE(URL)	https://eclass.uniwa.gr/courses/NA182/		

(2) COURSE GOALS / LEARNING OUTCOMES

This course aims at the initial familiarization of the student with the particularities profession of shipbuilding, the marine environment and the basic principles of design and construction of shipbuilding structures and their systems.

Upon successful completion of the course, the student will be able to:

- Distinguish the peculiarities of the profession of the Naval Architect and Marine Engineer and the possibilities of professional development.
- Be aware of the types of ships and marine structures, as well as their basic structure morphology.
- Understand the particularities of the marine environment.
- Be familiar with the type of environmental loading of marine floating structures.
- Understand the importance of automatic control systems
- Be familiar with the basic operating principles of floating structures and their contribution to green energy production.

(3) COURSE CONTENT / SYLLABUS

<ul style="list-style-type: none"> • The profession of Naval Architecture & Marine Engineering • Description of the principal features of ships - Types of conventional ships and their characteristics • Types of marine structures and state-of-the art ships. • The marine environment • Floating bodies - Introduction to the problem of stability. • Description of the hydrodynamic loads acting in marine structures. • Basic principles of shipbuilding construction. • The institutional framework of the construction and operation of ships. • Basic topics of power engineering - applications in Marine Engineering. • Basic concepts of automatic control systems. • Floating offshore structures and green energy.
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc.	Face-to-face Support of learning process through electronics platform of E-class	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	<ul style="list-style-type: none"> • Lecture presentations in electronic format • Support of learning process through electronics platform of E-class 	
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. 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>	Activity	Workload (hours)
	Lectures	26
	Study of Lectures	56
	Course total	82
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure 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>	Final written examination: 100%	

(5) ATTACHED BIBLIOGRAPHY

- Tupper, E.C., "Introduction to Naval Architecture", Elsevier 2013
- Κοτρίκλα, Ά., 2015. Ναυτιλία και περιβάλλον. [ηλεκτρ. βιβλ.] Αθήνα: Σύνδεσμος Ελληνικών
- Ακαδημαϊκών Βιβλιοθηκών. Διαθέσιμο στο: <http://hdl.handle.net/11419/5478>

Journals:

- Journal of Marine Science and Applications, Springer.
- Marine Structures, Elsevier