

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Naval Architecture		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	NAOME1341	SEMESTER	7 ^o
COURSE TITLE	SMALL CRAFT TECHNOLOGY		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS (ECTS)
Lectures		4	5
COURSE TYPE <i>general background, specialbackground, specialised general knowledge, skills development</i>	Specialized		
PREREQUISITE COURSES:	NAOME 1325 - Ship Resistance – Propulsion – Ship hydrodynamic)		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (English)		
COURSE WEBSITE (URL)	https://eclass.uniwa.gr/courses/NAFP115/		

(2) COURSE GOALS / LEARNING OUTCOMES

The main goal of the course is to provide students with fundamental knowledge of the performance and design of small craft. Particular emphasis is given on the understating of the basic mechanics and design principles of high speed crafts and sailing yachts.

(3) COURSE CONTENT / SYLLABUS

- General Description - Types of small crafts
- Design of small crafts
- Materials and construction of small crafts
- Types of high speed crafts
- Planning hulls - Resistance calculation of planning hulls
- Systematic series of semi-displacement and planing hull forms
- Propulsion of high speed crafts
- Sailing yachts
- Geometry of sailing - Analysis of forces acting on the hull of sailing yachts
- Systematic series of sailing yachts

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc.	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	<ul style="list-style-type: none"> • Use of ICT in teaching. • Communication with students and support of learning procedure through the electronic e-class platform. 	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>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> <i>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
	Exercises / fieldwork	26
	Project and essay writing (Evaluation of Resistance – Propulsion)	43
	Study and analysis of bibliography	45
	Visits	3
	Course total	143
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <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>	Evaluation: - Written examination including problem solving, short-answer questions etc	

(5) ATTACHED BIBLIOGRAPHY

<ul style="list-style-type: none"> • Larsson L. & Raven C. H, Principles of Naval Architecture Series: Ship Resistance & Flow, Soc. Naval Architects & Marine Eng. (SNAME), 2010 • Robert J. Scott, Fiberglass Boat Design & Construction, 2nd Edition SNAME, 1996 • Odd M. Faltinsen, Hydrodynamics of High-Speed Marine Vehicles, Cambridge University Press, 2006 • Roger Marshall, All About Powerboats: Understanding Design and Performance, International Marine/Ragged Mountain Press, 2002 • P.R.Payne, Design of High Speed Boats: Planing, Fishergate Pub Co, 1988 • C.A. Marchaj, Sail Performance, Adlard Coles Nautical, 2003 • Yun, Liang, Bliault, Alan, High Performance Marine Vessels, Springer, 2012 • Lawrence J. Doctors: Hydrodynamics of high-performance marine vessels, Springer, 2016 • C.A. Marchaj, Aero-Hydrodynamics of Sailing, Adlard Coles Nautical, 1988 • Lars Larsson – Rolf Eliasson, Principles of Yacht Design, Adlard Coles Nautical, 1994
