

COURSE OF STUDY Sciences and Management of Maritime Activities

ACADEMIC YEAR 2023-2024

ACADEMIC SUBJECT Construction of Naval and Marine Plants I

General information	
Year of the course	Second year
Academic calendar (starting and ending date)	October 2023 - January 2024
Credits (CFU/ETCS):	6
SSD	ING-IND/02
Language	Italian language
Mode of attendance	not mandatory, merely recommended

Professor/ Lecturer	
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Department and address	Scuola Sottufficiali Marina Militare – San Vito (Taranto)
Virtual room	//
Office Hours (and modalities: e.g., by appointment, on line, etc.)	Every Thursday (10.15 – 11.15 a.m.)

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
150	48		102
CFU/ETCS			
6	6		

Learning Objectives	Have the student acquire the basic notions concerning the nomenclature / shipbuilding and systems installed on board ships.
Course prerequisites	//

Teaching strategie	The course is developed through lectures relating to the aspects of the discipline that are relevant and indispensable for the achievement of the specific educational objectives of the teaching and overall of the course of study. Frontal teaching is supported by seminars, exercises, practical experience. During the lessons various tools are used for the improvement of teaching such as, for example, power point presentations projected in the classroom, diagrams, bibliographical indications and anything else deemed useful for improving the effectiveness of teaching.
Expected learning outcomes in terms of	
Knowledge and understanding on:	The acquisition of the methodology necessary for the knowledge and understanding of the criteria and methods of shipbuilding and facilities indicated in the program.

Applying knowledge and understanding on:	The acquisition of the methodology necessary for the application of knowledge and understanding of the criteria and methods of shipbuilding and naval installations.
Soft skills	<ul style="list-style-type: none"> • <i>Making informed judgments and choices</i> The acquisition and development of the ability to critically study the criteria and methods of shipbuilding and facilities indicated in the teaching program, also through the study of existing buildings and plants. • <i>Communicating knowledge and understanding</i> The acquisition of the ability to argue the topics examined, in order to be able to communicate and discuss them well in moments of sharing, comparison and discussion even in the classroom, both individually and in groups. • <i>Capacities to continue learning</i> The acquisition of the methodology necessary for learning, the mastery of the discipline, the critical study of the criteria and methods of shipbuilding and naval installations.
Syllabus	
Content knowledge	<p>Classification of vessels: based on the livelihood system - based on function; Geometry of the ship and hints of statics; Hull, hull and topsides; Perpendicular forwards, backwards and in the middle; Definitions of the parts that make up a ship; Construction plan. Similar hulls and similar hulls; Length, width, construction height and immersion; Relations between linear, surface and volume dimensions of the hull; Coefficients of fineness; Parameters affecting the stability of a ship; Watertight compartmentation; Naval nomenclature; Transverse structure; Longitudinal structure; Transverse / longitudinal structure; Metallic materials used in the naval field; Steels, alloys, composite materials; Construction technology; Metallic carpentry elements (sheets, profiles, squares, platbands); Madieri, paramezzali, watertight bulkheads, watertight elements, deposits, bases; Special structures; Bow and stern structures, local A.M., superstructures, flight deck; Fire-fighting and anti-leak systems; The fire collector; EE / PP fire-fighting and large-scale exhaustion, regulation; EE / PP and stretcher motor pumps; Fixed and semi-fixed fire-fighting systems; Fixed and semi-fixed depletion systems; Propulsion and power generation systems; Propulsion system with diesel thermal engines; Propulsion system with gas and steam turbines; Combined systems: codog, codag, cogag, cosas; Joints, reducers, shaft lines and propellers; Production, transmission and distribution of electricity;</p>

	<p>Characteristics of naval electrical systems; Power plants and their assets; Plant taken from the ground; Hull systems; Wheelhouse system and relative remote control; Production and distribution of compressed air B.P and A.P .; Fresh water production and distribution; Air conditioning; Black water treatment; Oily water purification.</p>
Texts and readings	"Dispensa di Costruzioni ed impianti navali e marini" – Mariscuola Taranto.
Notes, additional materials	//
Repository	//
Assessment	
Assessment methods	<p>Written and/or oral. The final test of the profit relative to the teaching takes place in written and / or oral form and the evaluation is expressed with a mark out of thirty, with possible honors. Further tests of the profit are carried out during the course. They relate to the topics covered in class and are articulated in the form of questionnaires characterized by open and / or multiple-choice questions, exercises. They can be taken into account in the final evaluation.</p>
Assessment criteria	//
Final exam and grading criteria	The criteria for the evaluation of the written and / or oral test take into account the correctness of the contents, the argumentative clarity and the skills of critical analysis and re-elaboration.
Further information	
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