



Subject card

Subject name and code	Fundamentals of Shipbuilding, PG_00060464						
Field of study	Mechanical and Naval Engineering						
Date of commencement of studies	October 2023		Academic year of realisation of subject			2024/2025	
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study	
Mode of study	Part-time studies		Mode of delivery			at the university	
Year of study	2		Language of instruction			Polish	
Semester of study	4		ECTS credits			4.0	
Learning profile	general academic profile		Assessment form			exam	
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Jakub Kowalski				
	Teachers		dr inż. Ryszard Pysko				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	27.0	9.0	9.0	0.0	0.0	45
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	45		6.0		49.0	100
Subject objectives	The purpose of the course is to familiarize you with the basic technological processes in the construction of metal hulls.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_W13] has an organized knowledge on design, construction and operation of ocean technology objects and systems		The student knows and distinguishes the basic processes in hull construction			[SW1] Assessment of factual knowledge	
	[K6_W14] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of ocean technology objects and systems		The student is able to select an engineering method and tool for the task at hand			[SW3] Assessment of knowledge contained in written work and projects	
	[K6_U13] in compliance with a formulated specification and with the aid of appropriate tools and methods, is able to complete a simple engineering task within the range of design, construction and operation of ocean technology objects and systems		The student is able to make a basic analysis of the metal hull structure in terms of its construction technology			[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information	
	[K6_U11] can use computer-aided design, production and operation tools for ocean technology objects and systems		The student is able to use engineering tools to complete the task			[SU1] Assessment of task fulfilment	
Subject contents	Lecture: Introduction - basic issues in the field of hull construction technology, including the properties of basic construction materials (steel and aluminum alloys), supplementing knowledge in the field of their connection. Stages of ship hull production: production preparation, pre-processing, prefabrication, hull assembly, launching, equipping. Laboratory: quality control in the construction of ship and yacht hulls - non-destructive testing of materials and welded joints.						

Prerequisites and co-requisites	Basic in the field of: - mechanics - strength of materials - material science - welding		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		100.0%	40.0%
		60.0%	60.0%
Recommended reading	Basic literature	Y. Okumoto, Y. Takeda, M. Mano, and T. Okada, Design of Ship Hull Structures. 2009. D. J. Eyres and G. J. Bruce, "Ship Construction, 7th Edition," (in English), Ship Construction, 7th Edition, pp. 1-388, 2012. PRS rules	
	Supplementary literature	articles pointed out by the lecturer internet sources	
	eResources addresses	Adresy na platformie eNauczanie: Podstawy budowy statków i jachtów - Moodle ID: 45279 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=45279	
Example issues/ example questions/ tasks being completed	Differences between a bench method and a sequence of flat sections Selection of nondestructive testing methods for the weld imperfections being sought		
Work placement	Not applicable		

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