GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Contemporary Problems in Ship Construction and Technology, PG_00062686						
Field of study	Naval Architecture and Offshore Structures						
Date of commencement of studies	February 2024		Academic year of realisation of subject	2024/2025			
Education level	second-cycle studies		Subject group	Specialty subject group Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	English			
Semester of study	2		ECTS credits	5.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Jakub Kowalski				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	15.0	30.0	0.0	75
	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	75		10.0	40.0	125	
Subject objectives	The aim of the course is to familiarize and analyze the current structural and technological problems in shipbuilding and offshore construction.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U02] Presents convincing and logically justified arguments regarding outcomes through critical analysis of information in diverse technical contexts and an approach to their interpretation	The student is able to critically analyze the results obtained	[SU2] Assessment of ability to analyse information
[K7_K01] Understands the need for lifelong learning, critically evaluate acquired knowledge, and comprehend the significance of knowledge in addressing cognitive and practical problems	The student is aware of the dynamically changing environment, development of knowledge and engineering tools	[SK2] Assessment of progress of work
[K7_W06] Capable of finding and utilizing credible sources of information crucial for analyzing issues within the field of study	The student is able to verify the data obtained from various sources for its usefulness in engineering analysis	[SW1] Assessment of factual knowledge
[K7_W02] Explains the essence and relationships of key components describing systems and processes in ocean engineering, utilizing current knowledge from major scientific fields related to the field of study	The student is able to identify cause-and-effect relationships in selected construction-technological processes in shipbuilding	[SW3] Assessment of knowledge contained in written work and projects
[K7_W03] Demonstrates advanced skills in applying analytical methods and problem-solving techniques related to ocean engineering, using appropriate tools	Students can apply advanced engineering tools to solve a specific problem	[SW3] Assessment of knowledge contained in written work and projects
[K7_U01] Develops innovative strategies to solve complex and dynamic problems by synthesizing information from various sources and utilizing analytical, simulation, and experimental methods, considering environmental variability	The student is able to analyze information from various sources and make a decision based on it	[SU2] Assessment of ability to analyse information

Subject contents

Lecture
Analysis of selected current structural and technological problems in shipbuilding

Laboratory
- Participation of students in scientific (mechanical / technological) research currently carried out at the Institute

Project
- Use of surface geometry in the process of hull construction

Prerequisites and co-requisites

Knowledge of the ship's hull design and construction process

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
	100.0%	33.0%
	100.0%	33.0%
	60.0%	34.0%

Recommended reading

Basic literature	I. Lotsberg, Fatigue Design of Marine Structures. Cambridge University Press, 2016. Y. Okumoto, Y. Takeda, M. Mano, and T. Okada, Design of Ship Hull Structures. 2009. Bruce, George J. Eyres, David J.. (2012). Ship Construction (7th Edition), Elsevier
Supplementary literature	Scientific articles indicated in class Internet sources
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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