



Subject card

Subject name and code	, PG_00056281						
Field of study	Ocean Engineering						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2023/2024		
Education level	first-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Zakład Mechaniki Konstrukcji Oceanotechnicznych -> Institute of Ocean Engineering and Ship Technology - > Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Krzysztof Wołoszyk				
	Teachers		dr inż. Krzysztof Wołoszyk				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30		4.0		16.0	50
Subject objectives	<p>To acknowledge students with:</p> <p>- structures of sea-going ships;</p> <p>- loads acting on ship hulls;</p> <p>- requirements of rules of classification and construction of ships;</p> <p>- stresses in ship hull structures.</p>						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U03] can use computer-aided design, production and operation tools for ocean technology objects and systems		Student knows the computational tools and methods used in analysis of ship structures		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W08] has knowledge of the principles of sustainable development		Student has knowledge regarding impact of environmental conditions on the degradation of ship structures		[SW1] Assessment of factual knowledge		
	[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems		Student has knowledge regarding ship structures		[SW1] Assessment of factual knowledge		

Subject contents	Wave loads on ship structures.		
	Design loads on ship structures.		
	Stresses in ship structures (general, zone and local strength) and criteria of sufficient strength.		
	General information on Polish Register of Shipping Rules for Classification and Design of Ships, Part II, Hull.		
	Hull structure of typical sea going cargo ship (double or single bottom, sides, decks, bulkheads, forepeak, afterpeak, ice strengthenings, foundations for engines, superstructures and deckhouses.		
Prerequisites and co-requisites	Knowledge of problems discussed during lectures on:		
	- mathematics for engineers;		
	- technical drawings;		
	- mechanics;		
	- strength of materials.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	kolokwium	60.0%	100.0%
Recommended reading	Basic literature	Robert Taggart(Editor), <i>Ship Design and Construction</i> , The soc. Of Nav. Arch. And Marine Eng., New York,1980.	
		S.Wewiórski, K.Wituszyński, <i>Konstrukcja stalowego kadłuba okrętowego</i> , Wyd. Morskie Gdańsk, 1977.	
		Polski Rejestr Statków, Publikacja Nr 45/P, <i>Analiza wytrzymałości zmęczeniowej stalowego kadłuba statku</i> , Gdańsk, 1988.	
		D.M.Faltinsen, <i>Sea Loads on Ship and Offshore Structures</i> , Cambr. Univ. Press, 1990.	
		PRS rules.	
	Supplementary literature	internet	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Ship class concept. Characteristic division of hulls of sea-going ships. Distribution of loads on hulls of sea-going ships.		
Work placement	Not applicable		