



Subject card

Subject name and code	Ship Structures I, PG_00046523						
Field of study	Ocean Engineering, Ocean Engineering						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2021/2022		
Education level	first-cycle studies		Subject group		Optional subject group 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		2.0		
Learning profile	general academic profile		Assessment form		assessment		
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. 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	20.0	0.0	0.0	0.0	0.0	20
	E-learning hours included: 0.0						
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14468 Adresy na platformie eNauczanie:						
	Additional information: Classes in the form of webinars are held on the Jitsi Meet platform at: https://meet.jit.si/ ProminentMoneysNarrowAny						
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	20		2.0		28.0	50
Subject objectives	To give students information on: - methods to predict wave loads on ships; - design loads for ship hulls; -requirements of rules for classification and design of ships; - hull structures of seagoing ships, inland waters ships, floating docks, offshore units.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W08] has knowledge of the principles of sustainable development				[SW1] Assessment of factual knowledge		
	[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems				[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		
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		