



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	<p>Wave loads on ship structures.</p> <p>Design loads on ship structures.</p> <p>Stresses in ship structures (general, zone and local strength) and criteria of sufficient strength.</p> <p>General information on Polish Register of Shipping Rules for Classification and Design of Ships, Part II, Hull.</p> <p>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).</p>								
Prerequisites and co-requisites	<p>Knowledge of problems discussed during lectures on:</p> <ul style="list-style-type: none"> - mathematics for engineers; - technical drawings; - mechanics; - strength of materials. 								
Assessment methods and criteria	<table border="1" data-bbox="448 898 1497 969"> <thead> <tr> <th data-bbox="448 898 794 931">Subject passing criteria</th> <th data-bbox="794 898 1141 931">Passing threshold</th> <th data-bbox="1141 898 1497 931">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 931 794 969">kolokwium</td> <td data-bbox="794 931 1141 969">60.0%</td> <td data-bbox="1141 931 1497 969">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	kolokwium	60.0%	100.0%
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Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>Robert Taggart(Editor), <i>Ship Design and Construction</i>, The soc. Of Nav. Arch. And Marine Eng., New York,1980.</p> <p>S.Wewiórski, K.Wituszyński, <i>Konstrukcja stalowego kadłuba okrętowego</i>, Wyd. Morskie Gdańsk, 1977.</p> <p>Polski Rejestr Statków, Publikacja Nr 45/P, <i>Analiza wytrzymałości zmęczeniowej stalowego kadłuba statku</i>, Gdańsk, 1988.</p> <p>D.M.Faltinsen, <i>Sea Loads on Ship and Offshore Structures</i>, Cambr. Univ. Press, 1990.</p> <p>PRS rules.</p> <p>internet</p>							
Example issues/ example questions/ tasks being completed	<p>Ship class concept. Characteristic division of hulls of sea-going ships. Distribution of loads on hulls of sea-going ships.</p>								
Work placement	<p>Not applicable</p>								