GDAŃSK UNIVERSITY OF TECHNOLOGY

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

To acknowledge students with:

- structures of sea-going ships;

- loads acting on ship hulls;

- requirements of rules of classification and construction of ships;

- stresses in ship hull structures.

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 enviromental 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

<table>
<tr><td>Subject contents</td><td>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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge of problems discussed during lectures on:

- mathematics for engineers;

- techncal drawings;

- mechanics;

- strength of materials.</td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>kolokwium</td><td>60.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>Robert Taggart(Editor), Ship Design and Construction, The soc. Of Nav. Arch. And Marine Eng., New York,1980.

S.Wewiórski, K.Wituszyński, Konstrukcja stalowego kadłuba okrętowego, Wyd. Morskie Gdańsk, 1977.

Polski Rejestr Statków, Publikacja Nr 45/P, Analiza wytrzymałości zmęczeniowej stalowego kadłuba statku, Gdańsk, 1988.

D.M.Faltinsen, Sea Loads on Ship and Offshore Structures, Cambr. Univ. Press, 1990.

PRS rules.</td></tr><tr><td>Supplementary literature</td><td>internet</td></tr><tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Ship class concept. Characteristic division of hulls of sea-going ships. Distribution of loads on hulls of sea-going ships.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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