GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Ship Motion Mechanics 2, PG_00051269		
Field of study	Ocean Engineering, Ocean Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	6	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Zakład Hydromechaniki i Hydroakustyki Okrętu -> Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Michał Krężelewski	
	Teachers	dr inż. Michał Krężelewski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	30.0	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	4.5	15.5	50

Subject objectives

The student recognizes manoeuvring abilities of modern ships. Knows ship steering devices. Sizing and calculates ship propeller and rudder.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	Designs the propeller and rudder.	[SW3] Assessment of knowledge contained in written work and projects
[K6_W06] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of ocean technology objects and systems	Designs the propeller and rudder.	[SW3] Assessment of knowledge contained in written work and projects
[K6_K03] understands non-technical aspects and effects of operation as an engineer, its influence on the environment and is aware of the responsibilities for the decisions taken	Designs the propeller and rudder.	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents

Hydrodynamic characteristics of a ship propeller. The maneuvering abilities of the ship. Modern steering devices. Selection and calculation of serial propellers and classic rudders.

Prerequisites and co-requisites

Ship Motion Mechanics I

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
project	100.0%	100.0%

Recommended reading	Basic literature	Dudziak Jan Teoria okrętu, Gdańsk 2008 Wełnicki Wiesław Mechanika ruchu okrętu, skrypt PG, Gdańsk 1989 Wełnicki Wiesław Sterowność okrętu, PWN Warszawa 1966 Molland Anthony The Marine Engeeniring Refarence Book - a Guide to Ship design, construction and operation, Essevier 2008 Molland Anthony, Turnock Stephen Marine Rudders and Control Sufraces, Elsevier 2007
	Supplementary literature	Krężelewski Mieczysław Hydromechanika ogólna i okrętowa cz.II skrypt PG Gdańsk 1982
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	