

表 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Ship Designing 1, PG_00046531								
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	Part-time studies		Mode of delivery			at the university			
Year of study	3		Language of instruction			Polish			
Semester of study	6		ECTS credits			3.0			
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	Subject supervisor		dr inż. Artur Karczewski						
of lecturer (lecturers)	Teachers		dr inż. Ewelina Ciba						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	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 classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM	
	Number of study hours	30		6.0		39.0		75	
	Getting to know the methodology of the preliminary ships design. Ability of using the effective methods to estimate the main parameters of the designed ship. Ability to determine the basic functional features of ships on the example of the general cargo ship.								
Learning outcomes				Subject outcome			Method of verification		
Learning outcomes	[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		Student is able to solve engineering tasks in the range of: floating, stability and power plant of classical cargo ships.			[SW3] Assessment of knowledge contained in written work and projects			
	[K6_U06] in compliance with a formulated specification and with the aid of appropriate tools and methods, is able to complete a simple engineering task within the range of design, construction and operation of ocean technology objects and systems		The effect relies on knowing the knowledge and methods of effective determination of main parameters of the proposed ship.			[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools			
	[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems		- Distingushes and applies the basic methods of a preliminary cargo ship calculations ; - Calculates the main parameters of transport chips and makes the spatial distribution of the hull - Pre- designs ship's propulsion system: the resistance, screw's characteristics and parameters of main engine power			[SW3] Assessment of knowledge contained in written work and projects			

Subject contents	Discussion of the individual topics of the classes of design and the data contained in the database parent ships						
	- Selection of a model ship according to given parameters,						
	- Determination of displacement of the designed ship						
	- Calculation of necessary stocks of fuel, food and water						
	- Determination of basic main dimensions and coefficients of the hull						
	- Creation of a design documentation of stability, buoyancy and registered tonnage of the ship						
	- Spatial distribution of the hull						
	- Design of the ships propulsion system						
	- Creation of a basic documentation of a preliminary ship design						
	Sketch of the side view of a designed ship						
Prerequisites and co-requisites	Course of principles of ship design - project I						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Report	100.0%	25.0%				
	Test	51.0%	75.0%				
Recommended reading	Basic literature	Michalski J.P.: Podstawy teorii projektowania okrętów. Wydawnictwo Politechniki Gdańskiej. Gdańsk 2013.					
		Buczkowski L.: Podstawy budownictwa okrętowego.Tom 1, 2 i 3. Politechnika Gdańska 1974.					
		Pacześniak J., Staszewski J.: Projektowanie morskich statków chandlowych. Tom 1, 2 i3. Politechnika Gdańska 1984.					
		Watson D.G.M.: Practical ship design. Elsevier 1998.					
	Supplementary literature	Schneekluth H.: Ship design for efficiency and economy. London: Butterworths 1987.					
		Michalski J.P.: <i>Metody przydatne do wspomaganego komputerem projektowania wstępnego statków śródlądowych.</i> Wydawnictwo Politechniki Gdańskiej. Gdańsk 2007.					
		Volker B.: Practical Ship Hydrodynamics. Butterworths 2000					
	eResources addresses	Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed							
Work placement	Not applicable						