



Subject card

Subject name and code	Ship Design II, PG_00060552						
Field of study	Naval Architecture and Offshore Structures						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2028/2029	
Education level	first-cycle studies	Subject group				Optional subject group Subject group related to scientific research in the field of study	
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				4.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Ship Design - None (Existed Previously) -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Tomasz Hinz					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	45.0	0.0	60
	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	60		6.0		34.0	100
Subject objectives	The aim of the course is to develop design skills and to acquire knowledge in the assessment of damaged ship stability.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U02] can work individually and in a team, communicate through various techniques in professional environment and also record, analyse, and present the results of work, can estimate the time needed to complete a given task	The student is able to prepare a basic intact and damage stability booklet.			[SU1] Assessment of task fulfilment		
	[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	The student has a structured knowledge of the ship's damage stability to the extent necessary for its design			[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	Students can carry out basic stability calculations.			[SU1] Assessment of task fulfilment		
Subject contents	<p>Course content – lecture</p> <ol style="list-style-type: none"> 1. The concept of ship damage stability and subdivision. 2. Measures of ship damage stability and applied calculation techniques. 3. Deterministic assessment of ship damage stability. 4. Probabilistic assessment of ship damage stability. 5. Modeling of ship hull with spatial subdivision in NAPA software. 6. Calculations of damage stability in NAPA. 						

Prerequisites and co-requisites	Sound mastery of knowledge of ship hydrostatics and intact ship stability.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Report	50.0%	100.0%
Recommended reading	Basic literature	1) International Convention for the Safety of Life at Sea (SOLAS) 2) International Convention for the Prevention of Pollution from Ships (MARPOL) 3) International Convention on Load Lines 4) NAPA Manual	
	Supplementary literature	Ruponen, Pekka: Principles of Ship Buoyancy and Stability	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Perform and present selected stability calculations. Discuss the watertight subdivision of a ship's hull. Generate a set of damages meeting SOLAS regulations.		
Practical activities within the subject	Not applicable		

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