

关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056272								
Field of study	Design and Construction of Yachts								
Date of commencement of studies	October 2022		Academic year of realisation of subject			2024/2025			
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	practical profile		Assessment form			assessment			
Conducting unit	Faculty of Ocean Engineering and Ship Technology								
Name and surname	Subject supervisor dr inż. Mohammad Ghaemi								
of lecturer (lecturers)	Teachers								
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project		Seminar	SUM	
	Number of study hours	15.0	0.0	15.0	0.0		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		3.0		17.0		50	
Subject objectives	The aim of the course is learning the knowledge and skills regarding the principles of operation of basic yacht automation and control systems as well as the basics of digitization of their subsystems.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	K6_W03		The student has a basic knowledge of the digitalization of basic systems and subsystems of motor yachts.			[SW1] Assessment of factual knowledge			
	K6_W06		The student has a structured knowledge of engineering methods and equipment enabling the implementation of conceptual designs in the field of major power yacht control systems, including the course and trajectory control system, the propulsion control system, and the roll stabilization system.			[SW1] Assessment of factual knowledge			
	K6_W04		The student has basic knowledge in the field of automation and control of onboard subsystems useful for understanding the possibilities of their application in the design and construction of motor yachts			[SW1] Assessment of factual knowledge			
	K6_U05		The student is able to formulate a simple engineering task and its specificity in the field of conceptual design and operation of power yacht control systems.			[SU3] Assessment of ability to use knowledge gained from the subject			
Subject contents	Introduction and principle definitions Model of jacht motion, incl. model of disturbances Yacht motion stability Yacht course and trajectory control Yacht roll control Yacht speed control Digitalization of motor yachts subsystems								
and co-requisites	- Fundamentals of automatics.								

Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade			
and criteria	1 colloquium: 50 points	56.0%	48.0%			
	Presence and activity: 5 points	0.0%	4.0%			
	Lab. tests and assignments: 50 points	56.0%	48.0%			
Recommended reading	Basic literature	Basic literature	rature			
		1. 2. Fossen T. I., Handbook of Marine Craft Hydrodynamics and Motion Control, John Wiley & Sons, 2011.				
		2. Thor I. Fosen: Marine Control Systems, Marine Cybernetics AS, 2002.				
	Supplementary literature	1. Thor I. Fossen: Guidance and Control of Ocean Vehicles. John Wiley and Sons, 1994.				
	eResources addresses	Adresy na platformie eNauczanie:				
Example issues/ example questions/ tasks being completed						
Work placement	Not applicable					