

关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

Subject card

Subject name and code	Computer Aided Yacht Design, PG_00056248								
Field of study	Design and Construction of Yachts								
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	practical profile		Assessment form			assessment			
Conducting unit	Department of Theory and Ship Design -> Faculty of Mechanical Engineering and Ship Technology						ogy		
Name and surname	Subject supervisor dr inż. Cezary Żrodowski								
of lecturer (lecturers)	Teachers		dr inż. Cezary Żrodowski						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	t	Seminar	SUM	
	Number of study hours	0.0	0.0	30.0	0.0		0.0	30	
	E-learning hours included: 0.0								
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=7432								
	Additional information:								
Learning activity and number of study hours	Learning activity Participation in classes include		didactic Participation in d in study consultation hours		Self-study		SUM		
	Number of study 30 hours		4.0		16.0		50		
Subject objectives	Familiarization with modern CAD software used in yachting industry and achieving of basic usage skills, presented on selected exemplary problems.								
Learning outcomes	Course outcome		Subject outcome Method of verification				ication		
	K6_W05		The student correctly selects CAD / CAE tools to the technical problems posed in the field of yacht design.			[SW3] Assessment of knowledge contained in written work and projects			
	K6_U06		The student is able to make a simple project in the field of 3D model and 2D drawing.			[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment			
	K6_U05		The student correctly defines the needs of the task and selects CAD / CAE tools to the technical problems posed in the field of design and construction			[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment			
Subject contents	 CAD/CAM/CAE software for maritime industry, functionality, requirements, comparison of available programs. Modeling of parametric hull shape and propeller Modeling of hull compartmentation Calculation of ship hydrostatics and stability Hydrodynamic resistance simulation (CFD) Strength simulations (MES) Optimization of parametric shape with MDO software Generating od 2D documentation on the basis of 3D model. 								
Prerequisites and co-requisites									
Assessment methods and criteria	Subject passing criteria		Passing threshold			Percentage of the final grade			
	Realsation of ongoing exercises		50.0%		70.0%				
and criteria	Realsation of ongoin	g exercises	50.0%			70.0%			

Recommended reading	Basic literature	Manuals for programs:				
		 Siemens NX AVEVA Marine Maat Hydro Star-CCM+ PolyCAD Delft Ship NAPA FORAN Maxsurf Inventor SolidWorks Carl Machover: "C4" 				
	Supplementary literature	 CAD Forum (<u>https://cad.pl/</u>) Machine Design (<u>https://www.machinedesign.com/</u>) 				
	eResources addresses	Adresy na platformie eNauczanie: Komputerowe wspomaganie projektowania jachtu, L, PiBJ, sem.03, zimowy 23/24 - Moodle ID: 32551 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=32551				
Example issues/ example questions/ tasks being completed	 Parametric model of hull form. Associative model of hull assembly. CFD simulation of propeller FEA simulation of simple structure 					
Work placement	Not applicable					