GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00073778		
Field of study	Naval Architecture and Offshore Structures		
Date of commencement of studies	February 2026	Academic year of realisation of subject	2026/2027
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Marine Structures Mechanics and Technology -> 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. Jakub Kowalski	
	Teachers	dr inż. Jakub Kowalski	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	30.0	0.0	0.0	45

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	45	0.0	0.0	45

Subject objectives

To become familiar with modern measurement methods and tools, including digital image correlation, needed to carry out a research project as part of individual research studies.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W04] demonstrates knowledge encompassing selected issues in the field of advanced knowledge, particularly in the scope of methods, techniques, tools, and algorithms specific to Naval Architecture and Ocean Engineering	The student understands the theoretical foundations, capabilities, and limitations of selected advanced research methods.	[SW1] Assessment of factual knowledge
[K7_U01] applies acquired analytical, simulation, and experimental methods, as well as mathematical models for analysis and evaluation of shipborne and offshore systems and processes	The student can perform measurements and assess the validity of the results obtained	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools

Subject contents

Course content – lecture

Badania własne z wykorzystaniem metody cyfrowej korelacji obrazu

Course content – laboratory

Individual research using digital image correlation

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lecture	70.0%	30.0%
lecture	100.0%	70.0%

Recommended reading	Basic literature	1 AGoodPracticesGuide forDigital Image Correlation. (2 ed.) . INTERNA- TIONALDIGITAL IMAGECORRELATIONSOCIETY. https:// doi .org/10.32720/idics/gpg.ed2 2 Schreier, H. , Orteu, J.-J. , & Sutton, M. A. (2009) . Image Correlation for Shape, MotionandDeformationMeasurements. https://doi .org/10. 1007/978- 0-387-78747-3
	Supplementary literature	
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Practical activites within the subject	Not applicable	

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