GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	3D visualisation of space data, E:41053W0						
Field of study	Space and Satellite Technologies						
Date of commencement of studies	February 2025		Academic year of realisation of subject	2024/2025			
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	English			
Semester of study	1		ECTS credits	2.0			
Learning profile			Assessment form	assessment			
Conducting unit	Department Of Geoinformatics -> Faculty Of Electronics Telecommunications And Informatics -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Marcin Kulawiak					
	Teachers						

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	15.0	0.0	30

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	30	0.0	0.0	30

Subject objectives

To familiarize students with manual and programming methods of three-dimensional visualization of space data.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_K03] Can analyse and implement assigned tasks while maintaining high technical standards. Is able to work and interact in a group, taking on different roles. Adheres to the principles of professional ethics and respects the diversity of views and cultures.	Student implements his tasks related to 3D space data visualisation maintaining high technical standards.	[SK2] Assessment of progress of work
K7_W12	He has the knowledge on methods of three-dimensional visualization of space data.	[SW1] Assessment of factual knowledge
K7_U12	Student is able to use and to implement methods of space data visualisation.	[SU1] Assessment of task fulfilment

Subject contents

3D visualisation of space data: basics of 3-dimensional computer graphics, 3D data visualization methods, coordinate systems for space and spatial data, 3D data formats, programming technologies and libraries, 3D graphics in WWW

Prerequisites and co-requisites

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Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Project	60.0%	50.0%
Exam	50.0%	50.0%

Recommended reading	Basic literature	Bruce Eckel, Thinking in Java (4th edition) Richard S. Wright, Benjamin Lipchak, Nicholas Haemel: OpenGL SuperBible: Comprehensive Tutorial and Reference Addison-Wesley Professional; 5 edition Preston Prescott, JavaScript Programming: A Beginners Guide to the Javascript Programming Language
	Supplementary literature	-
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	-	
Work placement	Not applicable	

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