GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Objective programming, E:41052W0
Field of study	Space and Satellite Technologies

Date of commencement of studies	February 2024	Academic year of realisation of subject	2023/2024
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

Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Emilia Lubecka
	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 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	Theory and practice on object oriented programming.

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.	He implements the assigned tasks related to objective programming maintaining high technical standards.	[SK2] Assessment of progress of work
	K7_U12	Student acquires practical skills on writing object-oriented software by performing laboratory tasks in specific programming languages.	[SU1] Assessment of task fulfilment
	K7_W12	Student has knowledge of object-oriented programming on the example of four object-oriented programming languages: C++, Java, C#, Python.	[SW1] Assessment of factual knowledge

Subject contents	1. Software programming paradigms including object oriented approach 2. Encapsulation, inheritance, abstraction and polymorphism in C++ language 3. Specific features of C++ obiect-orientation 4. Java language and its comparison to C++ language 5. C# language as successor of C++ and Java languages 6. Python as a scripting object oriented language
Prerequisites and co-requisites	Knowledge on non-object oriented language i.e. C language.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	lecture	60.0%	50.0%
	laboratory	60.0%	50.0%

Recommended reading	Basic literature	1. Bjarne Strastroup: The C++ programming language 2. Bruce Eckel: Thinking in Java 3. Andy Harris: Microsoft C# for absolute beginner 4. Mark Lutz: Programming Python
	Supplementary literature	None.

	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Sample task: implementation of simple object oriented software module using object oriented paradigms in different languages Sample question: 1. Describe object oriented paradigm. 2. What are the differences between C++ and java languages.	
Work placement	Not applicable	

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