



## Subject card

Subject name and code	Object-oriented programming languages I, PG_00020771						
Field of study	Technical Physics						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Optional subject group Subject group related to scientific research in the field of study		
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	general academic profile	Assessment form			assessment		
Conducting unit	Department of Theoretical Physics and Quantum Information -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Patryk Jasik					
	Teachers	dr inż. Patryk Jasik					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15		10.0		25.0	50
Subject objectives	Presentation of the ideology of the object-oriented programming.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K6_W05	The student knows the foundations of object-oriented programming.			[SW1] Assessment of factual knowledge		
	K6_K01	The student uses continuously developed object-oriented programming languages to create computer software.			[SK5] Assessment of ability to solve problems that arise in practice		
	K6_U03	The student creates computer programs using object-oriented techniques.			[SU1] Assessment of task fulfilment		
Subject contents	Software quality and the main goals of the object-oriented programming. Criteria of object orientation. Modularity. Approaches to reusability. Object-based decomposition. Object-oriented software construction. Abstract data types. The static structure: classes. The run-time structure: objects.						
Prerequisites and co-requisites	Knowledge of courses Procedural Programming Languages I and II (FIZ1C301 and FIZ1C307).						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	A written knowledge test of the lecture	50.0%			100.0%		
Recommended reading	Basic literature	B. Meyer – <i>"Object-Oriented Software Construction"</i> , Prentice Hall 1997					
	Supplementary literature	B. D. McLaughlin, G. Pollice, D. West, "Head First Object-Oriented Analysis and Design", O'Reilly Media 2006					
	eResources addresses	Adresy na platformie eNauczanie: Obiektowe Języki Programowania I (2023) - Moodle ID: 30100 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30100">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30100</a>					
Example issues/ example questions/ tasks being completed							
Work placement	Not applicable						