



Subject card

Subject name and code	Practice of Programming, PG_00058907						
Field of study	Informatics						
Date of commencement of studies	October 2023	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	Part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			5.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marcin Jurkiewicz				
	Teachers		dr Marcin Jurkiewicz				
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		10.0		85.0	125
Subject objectives	The aim of the course is to learn students programming and implementation of programs in the Linux/Visual Studio environment. Students should master C/C++ instructions, data resources, operators and functions. Students should acquire knowledge about structures, functions and other basic concepts related to programming in C / C ++.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W42] Knows and understands, to an advanced extent, architecture, design principles and methods of hardware and software support for local and distributed information systems, including computing systems, databases, computer networks and information applications, as well as the principles of human cooperation with computers and computer-aided teamwork	A student know basic principles of cooperation with a computer via the C / C ++ language.	[SW1] Assessment of factual knowledge
	[K6_U04] can apply knowledge of programming methods and techniques as well as select and apply appropriate programming methods and tools in computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study	A student is able to use the given knowledge (from the lecture), basic techniques of the C / C++ language and a software in Linux / Visual Studio to compile the program.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[K6_U41] can produce, test or evaluate software using modern programming platforms, tools, languages and paradigms of different levels, as well as use software packages supporting scientific and research processes as well as business decision-making processes and teamwork	A student programs in a procedural programming language, runs and tests programs.	[SU1] Assessment of task fulfilment
	[K6_U09] can carry out a critical analysis of the functioning of existing technical solutions and assess these solutions, as well as apply experience related to the maintenance of technical systems, devices and facilities typical for the field of studies, gained in the professional engineering environment	A student is able to choose from the existing templates / codes the most advantageous for himself and on its basis he can create a system solving various scientific and engineering problems. A student is able to analyze various algorithms solving a given problem and is able to choose the most effective one.	[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K6_U03] can design, according to required specifications, and make a simple device, facility, system or carry out a process, specific to the field of study, using suitable methods, techniques, tools and materials, following engineering standards and norms, applying technologies specific to the field of study and experience gained in the professional engineering environment	A student is able to design the flow of control between blocks in accordance with the given content of a project.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
Subject contents	Program of the course include the basic construction of C/C++ language and structural programming.		
Prerequisites and co-requisites	1. Mathematical knowledge in the way of middle school. 2. Notion of vector and matrix. 3. Student should be able to programming in the way of beginner.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project: Evaluation of correctness operation, algorithms, structures, run time and interface, universality.	50.0%	50.0%
	Exam	50.0%	50.0%
Recommended reading	Basic literature	1. B. Kerninghan, D. Ritchie, Język ANSI C	
	Supplementary literature	1. K. Reek, Język C Wskaźniki 2. J. Grębosz, Symfonia C	
	eResources addresses	Adresy na platformie eNauczanie: 2023 Podstawy Programowania - Moodle ID: 33939 https://enauzanie.pg.edu.pl/moodle/course/view.php?id=33939	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		