

Subject card

Subject name and code	Introduction to programming, PG_00143983						
Field of study	Informatics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		7.0		
Learning profile	practical		Assessment form		credit		
Conducting unit	Institute of Informatics -> Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Jakub Neumann				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	45.0	0.0	0.0	60
	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	60		0.0		115.0	175
Subject objectives	The aim of the course is to familiarize students with basic programming structures and techniques (data types, conditional statements, loops, functions), data structures (lists, dictionaries) and to acquire the skills to design, analyze and implement simple algorithms.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[INFL3_U04] can create, run and test programs using dedicated tools and design patterns	is able to create, run and test programs in a dedicated tool such as an integrated development environment or a specialized editor, is able to install and configure his or her work environment	[SU1] oral statement/conversation/discussion [SU5] implementation of a problem task [SU6] demonstration of practical skills
	[INFL3_U03] is able to work in a team of IT specialists, including being able to manage his/her time, make commitments and meet deadlines, communicate using various techniques in the professional environment, including the use of dedicated tools	is able to complete a programming task in accordance with the given specification (task content) and within the set deadline, discuss his own solution and that of others during a code review in a group forum	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[INFL3_W04] has ordered, theoretically founded knowledge in programming, algorithms and complexity, programming languages and paradigms	during classes, learns: basic programming structures (conditional statements, loops), basic data types (numeric, Boolean, character strings), scope of declarations and visibility of variables (local and global variables), learns the principles of building correct functions (how to determine parameters and return values), learns about data structures and operations on them (lists, dictionaries)	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[INFL3_K02] can precisely formulate questions to deepen his/ her own understanding of a given topic or to find missing elements of reasoning	is able to use concepts from the field of programming techniques, use concepts such as: function, list of parameters, return value, loop termination condition, criteria for the correctness of function execution	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
Subject contents	• Programs in various ways of writing (verbal description, programming language instructions). Manual simulation of the algorithm. • Development environment, running and debugging programs • Variables and basic data types. Variable declaration scope and visibility, local and global variables • Basic control programming constructs: conditional statements, loops (including nested) • Functions, parameters, return value, pure functions • Basic data structures: lists, dictionaries • Error handling		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		51.0%	20.0%
		51.0%	60.0%
		51.0%	20.0%
Recommended reading	Basic literature	Python. Wprowadzenie. Wydanie V, aut. Mark Lutz, ISBN: 9788328391697	
	Supplementary literature	Python. Nowoczesne programowanie w prostych, aut. Bill Lubanovic, ISBN: 9788328368422	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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