University of Gdańsk

Subject card

Subject name and code	Introduction to Programming, PG_00204156						
Field of study	Informatics						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
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
[INFPL3_U04] is able to use the acquired knowledge when creating, running and testing 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	[SU5] implementation of a problem task [SU6] demonstration of practical skills
[INFPL3_U03] is able to cooperate with other people within teamwork, including being able to manage his/her time, make commitments, communicate using various techniques in the professional environment, including the use of dedicated tools; is able to present different opinions and alternative technical solutions in the project team, explaining their basis, consequences and impact on the project implementation	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	[SU2] presentation/project/paper/ report
[INFPL3_W04] knows and understands advanced issues in programming, algorithms and computational complexity, programming languages and paradigms, as well as the complex relationships between these areas	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)	[SW5] implementation of a problem task
[INFPL3_K02] is ready to recognize the importance of knowledge in solving cognitive problems and practical and seeking opinions experts in case of difficulties with independent problem solving	is ready to use technical documentation, professional literature and expert sources	[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
project	51.0%	20.0%
tests	51.0%	60.0%
tests	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