University of Gdańsk

Subject card

Subject name and code	Introduction to programming, PG_00143983		
Field of study	Informatics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	undergraduate 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	
Conducting unit	Instytut Informatyki -> Faculty of Mathematics, Physics and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Jakub Neumann	
	Teachers	mgr Grzegorz Madejski dr inż. Anna Nenca mgr Radosław Ziemann mgr Laura Grzonka dr Jakub Neumann	

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_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
[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_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_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

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
	50.0%	20.0%
	50.0%	20.0%
	60.0%	60.0%

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	Podstawowe https://python-course.eu/ - A valuable lexicon of the Python language https://www.python.org/ - Python website, technical documentation Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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