



Subject card

Subject name and code	PROGRAMMING ELEMENTS, PG_00061472						
Field of study	Engineering Management						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2025/2026		
Education level	first-cycle studies	Subject group			Optional subject group		
Mode of study	Part-time studies (on-line)	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	3	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Informatics in Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Tomasz Deręgowski					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	16.0	0.0	0.0	16
	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	16	5.0		54.0		75
Subject objectives	Creates simple computer programs using reliable information						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_W03] identifies reliable sources of information relevant to the analyzed issues	uses reliable sources of information that meet the requirements of the programmed algorithm			[SW1] Assessment of factual knowledge		
	[K6_U02] prepares and presents convincing, professional presentations of the results of its activities, with their advanced interpretation	creates simple Python programs interpreting their functioning			[SU4] Assessment of ability to use methods and tools		
Subject contents	Methods of computational thinking - basic concepts Algorithms and software life cycle Elements of programming Arithmetic operators Using Variables Use of data Logic Iteration Procedures and functions Recursive functions Events Lists, tuples, arrays and dictionaries File suport object-oriented programming Testing, debugging and production						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Laboratory tasks	60.0%			100.0%		
Recommended reading	Basic literature	M.Sysło, Algorytmy, Helion, Gliwice 2016, M.Lutz, Python. Wprowadzenie, wyd IV, Helion, Gliwice 2010 M.Lutz, Python. Leksykon kieszonkowy, wyd V, Helion, Gliwice 2014					
	Supplementary literature	Python 3. Proste wprowadzenie do fascynującego świata programowania - Red A. Shaw					
	eResources addresses	Adresy na platformie eNauczanie:					

Example issues/ example questions/ tasks being completed	What are the characteristics of computational thinking? Write a program that displays 10 stars on the screen. Use a control statement (loop) Write a program that calculates how many prime numbers there are in
Work placement	Not applicable

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