

**Subject card**

<b>Subject name and code</b>	Introduction to Computer Programming, PG_00198454						
<b>Field of study</b>	Informatics						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	1	<b>ECTS credits</b>			6.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			exam		
<b>Conducting unit</b>							
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Janusz Dybizbański				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	30.0	0.0	60.0	0.0	0.0	90
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	90		0.0		60.0	150
<b>Subject objectives</b>	The aim of the course is to learn basic programming techniques and acquire the skills to design, analyze and implement basic algorithms.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>		<b>Method of verification</b>		
	[INFOL3_U06] is able to select and apply appropriate IT methods and tools to solve complex problems, is able to use acquired knowledge by appropriately selecting sources and information derived from them, and perform evaluation, critical analysis, and synthesis of this information						
	[INFOL3_W05] knows and understands advanced concepts in the field of various programming paradigms and programming languages; as well as object-oriented design and programming methods and patterns		can create computer programs and knows basic algorithm design techniques  knows the recursion mechanism, basic algorithms, and data structures		[SW4] test/exam - oral or written [SW2] presentation/project/paper/report		

Subject contents	<ul style="list-style-type: none"> <li>• Algorithm and program. Simple programs in various ways of writing (verbal description, block diagram, programming language instructions). Manual simulation of the algorithm.</li> <li>• Scheme of program processing in a high-level language - stages of compilation, consolidation and execution.</li> <li>• Variable declarations. Simple data types and structural types: array, record. Scope of declaration and visibility of variables, global variables.</li> <li>• Control instructions. The concept of partial and total program correctness.</li> <li>• Nested loops.</li> <li>• Procedures and functions. Ways to pass parameters to functions.</li> <li>• Recursion mechanism and its use. Expressing a loop with recursion and an example of expressing recursion with a loop. Proving the correctness of recursive functions using mathematical induction.</li> <li>• Representation of integers and floating-point numbers in the computer and the errors caused by them (over-range and rounding errors).</li> <li>• The use of pointers and memory management on the example of simple data structures.</li> <li>• Information about theoretical computational limits.</li> </ul>																				
Prerequisites and co-requisites	no requirements																				
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="459 595 794 622">Subject passing criteria</th> <th data-bbox="802 595 1137 622">Passing threshold</th> <th data-bbox="1145 595 1481 622">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="459 629 794 656">test</td> <td data-bbox="802 629 1137 656">51.0%</td> <td data-bbox="1145 629 1481 656">20.0%</td> </tr> <tr> <td data-bbox="459 663 794 689">activity in classes</td> <td data-bbox="802 663 1137 689">0.0%</td> <td data-bbox="1145 663 1481 689">5.0%</td> </tr> <tr> <td data-bbox="459 696 794 723">projects in class</td> <td data-bbox="802 696 1137 723">51.0%</td> <td data-bbox="1145 696 1481 723">15.0%</td> </tr> <tr> <td data-bbox="459 730 794 757">exam</td> <td data-bbox="802 730 1137 757">51.0%</td> <td data-bbox="1145 730 1481 757">50.0%</td> </tr> <tr> <td data-bbox="459 763 794 790">project</td> <td data-bbox="802 763 1137 790">51.0%</td> <td data-bbox="1145 763 1481 790">10.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	test	51.0%	20.0%	activity in classes	0.0%	5.0%	projects in class	51.0%	15.0%	exam	51.0%	50.0%	project	51.0%	10.0%
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Recommended reading	Basic literature	<p>[1] Griffiths David, Griffiths Dawn. <i>C. Rysz głową!</i> Wydawnictwo Helion.</p> <p>[2] Szepietowski A. <i>Podstawy informatyki</i>. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2000.</p> <p>[3] Kernighan B.W., Ritchie D.M. <i>Język ANSI C</i>. Wydawnictwa Naukowo-Techniczne, Warszawa 2003.</p>																			
	Supplementary literature	no applicable																			
	eResources addresses																				
Example issues/ example questions/ tasks being completed	no applicable																				
Work placement	Not applicable																				

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