GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	High Level Programming Languages, PG_00047917						
Field of study	Electronics and Telecommunications						
Date of commencement of studies	October 2023		Academic year of realisation of subject	2024/2025			
Education level	first-cycle studies		Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	2		Language of instruction	Polish			
Semester of study	4		ECTS credits	2.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Biomedical Engineering -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Magdalena Mazur-Milecka					
	Teachers	dr inż. Magdalena Mazur-Milecka					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	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	30		2.0	18.0		50
Subject objectives	The aim of the course is to familiarize students with selected high-level programming languages, as a development of the already gained programming knowledge and skills. An important objective is to show the similarities between the languages of the same class so that the student can easily learn a new programming language based on the well-known, previously learned programming language.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W04] Knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices	The student has knowledge in the field of: - installing and configuring the programming environment for the programming language (Java, C #, JavaScript), - write a program in Java, - creation and use of Java class libraries, - write a program launched in the WWW browser environment, - write a simple program in C #, - write a simple program in JavaScript.	[SW1] Assessment of factual knowledge
[K6_W05] Knows and understands, to an advanced extent, methods of supporting processes and functions, specific to the field of study	The student has knowledge in the field of: - algorithm implementation, - performing calculations using programming languages - solving simple computational problems and data processing using created software,	[SW1] Assessment of factual knowledge
[K6_U04] can apply knowledge of programming methods and techniques as well as select and apply appropriate programming methods and tools in computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study	The student has acquired skills in the field of: - installing and configuring the programming environment for the programming language (Java, C #, JavaScript), - write a program in Java, - creation and use of Java class libraries, - write a program launched in the WWW browser environment, - write a simple program in C #, - write a simple program in JavaScript.	[SU1] Assessment of task fulfilment

Subject contents

1. Review and classification of high level programming languages. 2. Object-oriented programming (OOP): Java (Java platform, code composition, classes, objects, variables, data types, exceptions, errors) 3. OOP: Java (loops, flow control instructions). 4. OOP: Java (i/o operations, applications of communication interfaces). 5. OOP: Java (graphics). 6. OOL: Java (OOP features) 7. OOL: Java (OOP features) 8. OOL: Java (raster and vector graphics) 9. OOL: C# (language specification in reference to Java) 10. OOL: C# (program design and implementation), 11. Modern OOL languages, 12. Modern OOL languages, 13. Scripting languages (SL): JavaScript. 14. Scripting languages (SL): JavaScript., 15. 13. Scripting languages (SL): JavaScript.

Prerequisites and co-requisites

No requirements

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Lecture - tests	0.0%	40.0%
Laboratory exercises	51.0%	60.0%

Recommended reading

Basic literature	Sun:Language Specification, http://java.sun.com Perry S.C.: Core C# and .NET: The Complete and Comprehensive Developer"s Guide to C# 2.0 and .NET 2.0, Prentice Hall, 2005 Ballard P., Moncur M.: Sams Teach Yourself Ajax, JavaScript, and PHP All in One, Sams, 2008 Microsoft: .Net and C# specifications, http://www.microsoft.com Welling L., Thomson L.: PHP and MySQL Web Development, Addison-Wesley Professional, 2008 Eckel B.: Thinking In Java,Prentice Hall, 2006
Supplementary literature	No requirements
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable