



Subject card

Subject name and code	Technological Platforms, PG_00047670						
Field of study	Informatics						
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			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Radiocommunication Systems and Networks -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Cwalina					
	Teachers	dr inż. Krzysztof Cwalina					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45	15.0		15.0	75	
Subject objectives	Presentation of technological platforms: .NET and Java						
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		Knows and understands programming methods in C # and Java.		[SW1] Assessment of factual knowledge		
	[K6_W07] Knows and understands, to an advanced extent, the general principles of setting up and development of business entities, forms of individual entrepreneurship and running ventures in the field specific to the field of study		Knows and understands how to create applications in C # and Java.		[SW1] Assessment of factual knowledge		
	[K6_U01] can apply mathematical knowledge to formulate and solve complex and non-typical problems related to the field of study and perform tasks, in an innovative way, in not entirely predictable conditions, by:n- appropriate selection of sources and information obtained from them, assessment, critical analysis and synthesis of this information,n- selection and application of appropriate methods and toolsn		Can implement algorithms in C # and Java		[SU1] Assessment of task fulfilment		

Subject contents	1. Introduction and pass criteria 2. Java Collections and introduction to generics 3. Java Beans and overview of standard Java classes 4. Enum types 5. Graphical User Interfaces in Java Swing 6. Using Beans Binding library to facilitate creating of GUI 7. Multithreading programming in Java 8. Networking and mobile in Java 9. Parsing XML in Java 10. Persistence (database access in JavaSE) 11. .NET platform components 12. Collections in .NET platform Data access layer ADO.NET Transaction and stored procedures in MS SQL Server Buffering data in web applications XML parsing in .NET, mobile .NET		
Prerequisites and co-requisites	Knowledge of object oriented programming. Knowledge of mobile platforms.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Practical exercise	50.0%	50.0%
	Midterm colloquium	50.0%	50.0%
Recommended reading	Basic literature	C. Nagel, B. Evjen, J. Glynn, M. Skinnerand, K. Watson Professional C# 2005 with .NET 3.0, Wrox Press 2007 The Java Tutorial, Oracle, 2010 Bruce Eckel: Thinking in Java 4th Edition Code Conventions for the Java Programming Language	
	Supplementary literature	E. Jendrock, I. Evans, D. Gollapudi, K. Haase, C. Srivathsa: "The Java EE 6 Tutorial", Oracle, 2010	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		