



Subject card

Subject name and code	, PG_00067895						
Field of study	Technical Physics						
Date of commencement of studies	February 2027	Academic year of realisation of subject			2027/2028		
Education level	second-cycle studies	Subject group			Specialty subject group 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	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Institute of Physics and Applied Computer Science -> Faculty of Applied Physics and Mathematics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Bartosz Reichel				
	Teachers		dr inż. Bartosz Reichel				
Lesson types	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						
	eNauczanie source address: https://enauczanie.pg.edu.pl/2025/course/view.php?id=1937						
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		5.0		50.0	100
Subject objectives	Familiarizing students with programming platforms (such as .NET, Blazor, Unity, Juice, React, Zephyr, Android Java, ...) showing the advantages, disadvantages and problems in using such solutions.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U02] demonstrates advanced programming skills in a selected language and the ability to use specialised software packages.						
	[K7_W04] possesses advanced knowledge of mathematical, numerical and simulation methods used in the description and modelling of physical phenomena.						
	[K7_K01] demonstrates readiness for continuous professional development, including updating and critically evaluating knowledge in physics and related fields, and recognising its importance in solving practical and theoretical problems.						

Subject contents	Course content – lecture Zadanie polegające na:		
	1) Wybraniu tematu realizowanego przedsięwzięcia 2) Wybór platform, ocena możliwości realizacji 3) Wybór ostatecznie platformy, bardziej szczegółowy test możliwości 4) Implementacja rozwiązania		
Prerequisites and co-requisites	Course content – laboratory The task involves:		
	1) Selecting the topic of the project 2) Selecting platforms, assessing feasibility 3) Final platform selection, more detailed feasibility testing 4) Implementing the solution		
Assessment methods and criteria	none		
	Subject passing criteria	Passing threshold	Percentage of the final grade
Recommended reading	Lab	50.0%	100.0%
	Basic literature	1. Advanced ASP.NET Core 8 Security : Move Beyond ASP.NET Documentation and Learn Real Security, Scott Norberg, 2024 2. Core Java: Fundamentals, Volume 1 ,2020,Cay Horstmann 3. The Road to React: Your journey to master plain yet pragmatic React., Robin Wieruch	
	Supplementary literature	Docker in Action, Second Edition,2019, Jeff Nickoloff , Stephen Kuenzli Kubernetes in Action, Second Edition, 2025, Marko Luksa , Kevin Conner	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Implement a video streaming app on your chosen platform		
Practical activities within the subject	Not applicable		

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