GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Programming of Local Applications, PG_00048014
Field of study	Informatics

Date of commencement of studies	October 2025	Academic year of realisation of subject	2028/2029
Education level	first-cycle studies	Subject group	Optional 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	4	Language of instruction	Polish
Semester of study	7	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment

Conducting unit	Department Of Algorithms And Systems Modelling -> Faculty Of Electronics Telecommunications And Informatics -> Wydziały Politechniki Gdańskiej

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Manuszewski
	Teachers	dr inż. Krzysztof Manuszewski

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	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 main goal is preparation of students for development of GUI and system part of server. In particular subject focuses on efficient system resource management and effective mulitasking implementation.

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	Student knows methods of implementation of modern GUI	[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	Student is able to efficient design and implementation of modern GUI and local processing solutions	[SU1] Assessment of task fulfilment
	[K6_W44] knows and understands, to an advanced extent, architecture, design principles and methods of hardware and software support for local and distributed information systems, including computing systems, databases, computer networks and information applications, as well as the principles of human-computer interaction, the operation and evaluation criteria of data processing, storage and transfer methods, including computational algorithms, artificial intelligence and data mining as well as standards and methods of IT systems administration, monitoring of processes and robustness to undesirable phenomena and activities	Stident knows and is able to apply selected architectural patterns	[SW1] Assessment of factual knowledge

| Subject contents | Architecture of .Net platform

GUI technologies - WPF, WF

Ussage of system resources

Multitasking vs asynchronous

Memory management

Configuration and diagnostics of applications

System Services |
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Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		50.0%	40.0%
		50.0%	60.0%

Recommended reading	Basic literature	*C# 5.0 IN A NUTSHEL*L, J. Albahari, B. Albahari
		CLR via C#, J Ritchter
		WPF 4 Unleashed, Nathan A.
	Supplementary literature	MSDN
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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