



Subject card

Subject name and code	Methods and Tools for Developers, PG_00063880						
Field of study	Informatics						
Date of commencement of studies	October 2026	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	3	Language of instruction			Polish		
Semester of study	5	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Software Engineering -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Grzegorz Gołaszewski					
	Teachers	dr inż. Grzegorz Gołaszewski					
Lesson types	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 the methods and tools of developers' work.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U07] can apply methods of process and function support, specific to the field of study	At each stage of the software life cycle, the student can select and use appropriate tools for development, testing, and implementing software, as well as tools supporting the organization of cooperation.			[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		
	[K6_W10] knows and understands, to an advanced extent, the parameters, functions, and methods of analysis, design, and optimization of electronic circuits and systems, the definitions of error and measurement uncertainty, measurement methods, including time, frequency, and phase measurements, the properties of converters, and methods of digital signal processing, as well as the basic processes occurring in the life cycle of technical devices, objects, and systems, and methods of supporting processes and functions, specific to the field of study	With the software life cycle, the student knows methods and tools supporting them in both production work related to the organization of cooperation, as well as testing and implementation of software.			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		

Subject contents	Course content – lecture		
	<ol style="list-style-type: none"> 1. Using code versioning tools 2. Continuous integration / continuous deployment 3. Development workflows 4. Virtualization / containerization 5. Selected DevOps tool 		
Prerequisites and co-requisites	Course content – laboratory		
	<ol style="list-style-type: none"> 1. Using code versioning tools 2. Development team collaboration in line with established workflow principles 3. Configuring selected DevOps tools 4. Automating quality assurance and implementation tasks 		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Laboratoires	50.0%	50.0%
	Lecture	50.0%	50.0%
Recommended reading	Basic literature	Rob Cowell, Lars Malmqvist: Salesforce DevOps for Architects: Discover tools and techniques to optimize the delivery of your Salesforce projects, Packt Publishing, 2024. Nigel Poulton, Docker Deep Dive: Zero to Docker in a single book, 2024 edition.	
	Supplementary literature	Tools documentation	
	eResources addresses		
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> 1. Set up your CI/CD environment. 2. Create and configure a code repository in your chosen Git tool. 3. Create a docker environment for the selected software. 		
Practical activities within the subject	Not applicable		

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