GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Methods and Tools for Developers, PG_00063880
Field of study	Informatics

Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
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 -> Wydziały Politechniki Gdańskiej

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Michał Zawadzki
	Teachers	dr inż. Grzegorz Gołaszewski

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						
	eNauczanie source addresses: Moodle ID: 43103 Metody i narzędzia pracy deweloperów 2026_2027 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=43103						

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_W10] knows and understands to an advanced degree the basic processes occurring in the life cycle of equipment, objects and technical systems, as well as 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.	[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge
	[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

Subject contents	1. Using code versioning tools
	2. Continuous integration / continuous deployment
	3. Development workflows
	4. Virtualization / containerization
	5. Selected DevOps tool
Prerequisites and co-requisites	1. Knowledge of sample programming languages
	2. Basic knowledge of work organization in Agile methodologies.

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	
	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.
Work placement	Not applicable

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