

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Software Engineering, PG_00044135								
Field of study	Mathematics								
Date of commencement of studies	October 2024		Academic year of realisation of subject			2024/2025			
Education level	second-cycle studies		Subject group						
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			assessment			
Conducting unit	Department of Differential Equations and Mathematical Applications -> Faculty of Applied Physics and Mathematics								
Name and surname	Subject supervisor		dr hab. Paweł Pilarczyk						
of lecturer (lecturers)	Teachers dr hab. Paweł Pilarczyk								
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM	
	Number of study hours	30.0	0.0	15.0	15.0		0.0	60	
	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	60		5.0		35.0		100	
	Becoming familiar with basic methods of software engineering and acquiring the ability to apply these methods in practice. This concerns group work on a large scale IT project at all the stages of software production: beginning with requirements engineering, through requirements analysis, software design, implementation, testing, installation, to the stage of software maintenance. Also getting acquainted with basic issues regarding IT project management, such as quality management.								
Learning outcomes	Course outcome Subject outcome Method of verification					fication			
Subject contents	Lecture: Introduction to software engineering. Ethics code. Software development processes. Requirements engineering. Structural and object-oriented methods. Using the UML in modelling. Testing software. IT project management, quality management. Software maintenance. Critical systems. Agile Manifesto and agile methods, including Scrum.								
Prerequisites and co-requisites	Basic ability to write computer programs, e.g. in Python, C, or HTML/JavaScript.								
Assessment methods	Subject passing criteria		Passing threshold		Percentage of the final grade				
and criteria	homework, project, presentations, etc.		60.0%		50.0%				
	quizzes (in writing, 10 minutes each)		60.0%		50.0%				
Recommended reading Basic literature			Krzysztof Sacha, Inżynieria oprogramowania, PWN 2010.						
			Mariusz Chrapko, Scrum. O zwinnym zarządzaniu projektami. Wydanie II rozszerzone, Helion 2014.						

	Supplementary literature	lan Sommerville, Software Engineering, Pearson, 10th edition, 2015.					
		Roger S. Pressman, Software Engineering: A Practitioner's Approach, McGraw Hill; 8th edition, 2014. Russ Miles, Kim Hamilton, Learning UML 2.0: A Pragmatic Introduction to UML, O'Reilly and Associates, 2006.					
		Popular Agile Process. Pearson Education, 2013.					
	eResources addresses	Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed	Requirements engineering.						
	Software development processes.						
	Verification and validation.						
	Agile methods and the Manifesto.						
	Ethics code of a software engineer.						
	The INVEST features of user stories.						
Work placement	Not applicable						

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