



Subject card

Subject name and code	Data quality assurance, PG_00053008						
Field of study	Data Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2027/2028		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study 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	6		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Software Engineering -> Faculty Of Electronics Telecommunications And Informatics -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Paweł Weichbroth				
	Teachers		dr Paweł Weichbroth				
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		6.0		39.0	75
Subject objectives	The aim of the course is introduction to aspects of data quality in computer systems and the organization of programs to improve the quality of data						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W03] identifies veracious sources of information relevant to the analyzed issues		Students is able to define the objectives and scope of a data quality improvement project data. The student is able to identify the activities data quality improvement and their verification.		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_U02] prepares and presents convincingly professional presentations of the results of undertaken activities, with their advanced interpretation		Students is able to identify attributes and data quality metrics for practical applications. The student is able to identify and plan actions to ensure data quality in the system life cycle.		[SU1] Assessment of task fulfilment		
	[K6_K01] demonstrates awareness of legal, ethical and cultural diversity issues, making socially responsible decisions		The student is able to identify and anonymise personal or sensitive data. The student is able to identify and delete, if necessary, data that violates the dignity of another person.		[SK5] Assessment of ability to solve problems that arise in practice		

Subject contents	LECTURES: Introduction. The concept of data quality. The attributes of data quality and data business value. Data quality in the data lifecycle. Evaluation and verification of data quality. Data quality improvement programs. PROJECT: Development of the data quality evaluation and improvement program for an exemplary system and execution of the elements of the plan.		
Prerequisites and co-requisites	Completion of the course: Databases		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Theory	50.0%	50.0%
	Project	50.0%	50.0%
Recommended reading	Basic literature	1. Arkady Maydanchik, Data Quality Assessment, Technics Publications, 2007 2. Danette McGilvray, Executing Data Quality Projects, Elsevier, 2008	
	Supplementary literature	ISO/IEC 25012, Software product Quality Requirements and Evaluation (SQuaRE) Data quality model	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Sample issues: - How do you measure the quality of data? - What types of activities you can do in order to improve the data quality? - What are the typical data quality problems during data migration and integration? - What databases mechanisms can be used to ensure data quality?		
Work placement	Not applicable		

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