



Subject card

Subject name and code	Data quality assurance, PG_00053008						
Field of study	Data Engineering, Data Engineering						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2028/2029		
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 -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Paweł Weichbroth				
	Teachers		dr Paweł Weichbroth				
Lesson types	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_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		
	[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_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		

Subject contents	<p>Course content – lecture 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.</p> <p>PROJECT: Development of the data quality evaluation and improvement program for an exemplary system and execution of the elements of the plan.</p>		
Prerequisites and co-requisites	Completion of the course: Databases		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	50.0%	50.0%
	Theory	50.0%	50.0%
Recommended reading	Basic literature		<p>1. Arkady Maydanchik, Data Quality Assessment, Technics Publications, 2007</p> <p>2. Danette McGilvray, Executing Data Quality Projects, Elsevier, 2008</p>
	Supplementary literature		ISO/IEC 25012, Software product Quality Requirements and Evaluation (SQuaRE) Data quality model
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>Sample issues:</p> <ul style="list-style-type: none"> - 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? 		
Practical activities within the subject	Not applicable		

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