GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Data quality assurance, PG_00053008
Field of study	Data Engineering

Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
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

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Andrzej Wardziński
	Teachers	dr inż. Andrzej Wardziński 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_W16] Knows the quality attributes of data in information systems and the principles of data management and usage that ensure the level of data quality required for specific applications	The student is able to specify data quality attributes and metrics for practical applications. The student is able to identify and plan actions to ensure the quality of data in the system life cycle.	[SW1] Assessment of factual knowledge
	[K6_U02] designs, analyses correctness and creates functional specification of IT systems, selects appropriate measures, creates quality models, prepares and assesses their design documentation.	The student is able to define the objectives and scope of the project to improve the quality of data. Student can define the actions to improve data quality and its verification	[SU1] Assessment of task fulfilment

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: Data quality assurance - 2023 - Moodle ID: 17279 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17279

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