



Subject card

Subject name and code	Databases, PG_00031221						
Field of study	Mathematics						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2027/2028	
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	2	Language of instruction				Polish	
Semester of study	4	ECTS credits				4.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Probability Theory and Biomathematics -> Faculty of Applied Physics and Mathematics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Magda Dettlaff					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	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
Subject objectives	Knowledge of SQL. Ability of designing non complicated data bases.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K6_U10	The student uses basic SQL statements and data types in relational databases. Is aware of the requirements for database systems. He independently designs and implements simple database systems. Work environment: ORACLE, SAS.			[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
	K6_W08	The student uses basic SQL statements and data types in relational databases. Uses SQL language mechanisms that allow to increase the level of data integrity stored in the database.			[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge		
Subject contents	Course content – lecture Lectures and laboratories: Introduction to data bases and relational data model. SQL language: querying and manipulating data. Row and aggregate functions. Joining tables. Subqueries. Data Manipulating Language (DML). Data Definition Language (DDL). Ensuring data integrity. Introduction to modelling and designing computers systems. Normalization of logical schema, functional dependency, normal forms. Using transactions in data base system. Designing and implementing of simple data base systems. PL/SQL language. Cursors, exceptions and triggers.						
Prerequisites and co-requisites	Knowledge of Introduction to logic and set theory.						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Tests	45.0%			20.0%		
	Laboratory	45.0%			80.0%		

Recommended reading	Basic literature	Michael J. Hernandez, Bazy danych dla zwykłych śmiertelników, Mikom, Warszawa, 2004. Rick Greenwald, Robert Stackowiak, Jonathan Stern, Oracle Database 11g. To, co najważniejsze, Wydawnictwo Naukowe PWN, Warszawa 2009. Michael McLaughlin, Oracle Database 11g. Programowanie w języku PL/SQL, Helion, Gliwice
	Supplementary literature	Jason Price, Oracle Database 12c i SQL. Programowanie, Helion, Gliwice 2015 Michael McLaughlin, Oracle Database 12c. Programowanie w języku PL/SQL, Helion, Gliwice 2015
	eResources addresses	
Example issues/ example questions/ tasks being completed	Make project and implementation of table for storing the data of students.	
Practical activities within the subject	Not applicable	

Document generated electronically. Does not require a seal or signature.