GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Databases, PG_00031221		
Field of study	Mathematics		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
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		
Name and surname of lecturer (lecturers)	Subject supervisor	Beata Jackowska-Zduniak	
	Teachers	mgr inż. Tomasz Gzella Beata Jackowska-Zduniak	

Lesson types and methods of instruction

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

Adresy na platformie eNauczanie:

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_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.	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation
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.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task

Subject contents

Lectures and laboratories: Introduction to data bases and relational data model. SQL language: quering 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 bese 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
Laboratory	45.0%	80.0%
Tests	45.0%	20.0%

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.	
Work placement	Not applicable	

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