GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	DATABASES, PG_00066522		
Field of study	BAZY DANYCH		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Informatics In Management -> Faculty of Management and Economics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Kamil Brodnicki	
	Teachers	dr inż. Kamil Brodnicki	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	8.0	0.0	24.0	0.0	0.0	32

E-learning hours included: 0.0

eNauczanie source addresses:

Moodle ID: 47080 BAZY DANYCH niestacjonarne 2025/2026
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=47080

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	32	6.0	62.0	100

Subject objectives

Preparing students to independently design and implement simple relational databases based on knowledge of information modeling, principles of operation of database management systems and SQL language, and shaping attitudes related to the responsible and conscious use of data in the context of information management.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W02] Demonstrates advanced knowledge of methods and techniques related to the field of study in economic analytics to explain complex problems.	knows and understands the principles of relational database design in the context of creating information models of management systems	[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym
[K6_U07] Applies advanced information technologies to enhance data analysis and decision-making processes.	is able to implement relational databases using tools such as MS Access, using SQL to analyze and process data in accordance with user requirements; is ready to responsibly create and document data structures, in particular through cooperation in project teams and reflection on the quality and reliability of the information being processed	[SU1] Ocena realizacji zadania [SU4] Ocena umiejętności korzystania z metod i narzędzi [SU5] Ocena umiejętności zaprezentowania wyników realizacji zadania

<table>
<tr><td>Subject contents</td><td>Course content – lecture

LECTURES: The essence, types of databases. Elements of database construction. Data models and data integrity. Database management systems - DBMS. Database Design. ERD - Entity Relationship Diagram. SQL - Structured Query Language.

LABORATORIES: Getting to know MS Access - creating tables, relations, queries (selecting and functional), creating forms and reports. SQL language. Designing databases as elements of management information systems in the enterprise.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge of the MS Office environment.</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Development of a data model concept</td><td>60.0%</td><td>10.0%</td></tr>
<tr><td>Team technical database project</td><td>60.0%</td><td>30.0%</td></tr>
<tr><td>Test of knowledge and understanding in the form of a quiz</td><td>60.0%</td><td>20.0%</td></tr>
<tr><td>Practical tasks</td><td>60.0%</td><td>40.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>1. Michael J. Hernandez - Projektowanie baz danych dla każdego. Przewodnik krok po kroku. Helion, Gliwice 2022.

2. Michael Alexander, Richard Kusleika - Microsoft Access 2019 PL Biblia. Kompletny Przewodnik. Helion, Gliwice 2019.</td></tr>
<tr><td>Supplementary literature</td><td>Own materials for classes.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Create relationships between tables using primary keys. Show the differences between the update query and the crosstab query. What do we use forms for and what do we use reports in Access? Export the report to a pdf file. Design a database for a sample enterprise based on the collected requirements, taking into account the identified constraints.</td></tr>
<tr><td>Practical activites within the subject</td><td>Not applicable</td></tr>
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