GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	DATABASES, PG_00058505		
Field of study	Economic Analytics		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
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	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		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Bartosz Woliński	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	30.0	0.0	0.0	45

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	45	10.0	45.0	100

Subject objectives

Designs and implements databases in accordance with theoretical and practical rules

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U07] uses information technologies to improve data analysis and decision-making processes	implements databases based on defined requirements	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
[K6_W02] demonstrates comprehensive preparation in the field of methods, techniques for formulating and solving problems	applies the principles of requirements modeling and IT system design to create databases	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Designing an information system. Place the design in the life cycle of the system. The methodology for designing and modeling. Designing databases as part of management information systems.
Engineering requirements.
Identification of processes and functions (analysis of function).
The logical process model.
Modeling the flow of information.
Data modeling.
The logical data model based on "case study."
Optimizing data model.
The physical data model.
Modeling Interface.
Process model stages.
Using CASE tools, database schema generation.
RDBMS MS SQL Server use to create databases.
Design of input and output.
Advanced SQL (structured query language) used for creating, modifying databases, and to place and retrieve data from databases.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Project	60.0%	60.0%
Practical exercise	80.0%	30.0%
Final test	75.0%	10.0%

Recommended reading	Basic literature	Mendrala, D., Szeliga, M. (2008). Serwer SQL2005Express. Gliwice:Helion Mendrala, D., Szeliga, M. (2012). Microsoft SQL Server Modelowanie i eksploracja danych. Gliwice:Helion Johanson, E., Jones, J. (2009). Modelowanie danych w SQL Server 2005 I 2008. Gliwice:Helion Ben-Gan, I. (2012). Microsoft SQL Server 2012.Podstawy Języka T_SQL, APN Promise Petkovic ,D. (2012). Microsoft® SQL Server® 2012: A Beginners Guide. Fifth Edition McGraw-Hill
	Supplementary literature	Yourdon, E. (1996). Współczesna analiza strukturalna, Warszawa; WNT.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Design a simple information system How the processes are identified and modelled? How the data are modelled?	
Work placement	Not applicable	