GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Databases, PG_00067781						
Field of study	Economic Analytics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
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 -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	45.0	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	Designs and implements databases in accordance with theoretical and practical rules

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W02] possesses advanced knowledge of methods and techniques that enable precise formulation and effective problem solving.	applies the principles of requirements modeling and IT system design to create databases	[SW3] Assessment of knowledge contained in written work and projects
	[K6_U07] uses advanced information technologies to enhance 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

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
	Final test	75.0%	10.0%
	Practical exercise	80.0%	30.0%
	Project	60.0%	60.0%
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		

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