GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	DATABASES, PG_00058560
Field of study	Economic Analytics

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

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	8.0	0.0	16.0	0.0	0.0	24
	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	24	10.0	66.0	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] 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
	[K6_U07] uses information technologies to improve data analysis and decision-making processes	implements databases based on defined requirements	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools

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
	Practical exercise	80.0%	35.0%
	Project	60.0%	55.0%
	Final test	75.0%	10.0%

Recommended reading	Basic literature	Mendrala D., Szeliga M. (2008), Serwer SQL2005Express, Helion Mendrala D., Szeliga M. (2012), Microsoft SQL Server Modelowanie i eksploracja danych, Helion Johanson E., Jones J. (2009), Modelowanie danych w SQL Server 2005 I 2008, 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.: Współczesna analiza strukturalna, WNT, Warszawa 1996.
	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	