



## Subject card

Subject name and code	DATABASES, PG_00058560						
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	Part-time studies (on-line)	Mode of delivery			blended-learning		
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. Kamil Brodnicki				
	Teachers		dr inż. Kamil Brodnicki				
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: 18.0						
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		apply 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		implement 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		
	Project		60.0%		40.0%		
	Final test		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: Bazy danych NST 2024/2025 - Moodle ID: 40192 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=40192">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=40192</a>
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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