

Subject card

Subject name and code	Applied SQL for Managers and Finance Professionals, PG_00179810						
Field of study	Finance and Accounting, Informatics and Econometrics, Management						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	Master's studies		Subject group		Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		English		
Semester of study	4		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Statistics -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr Agata Majkowska				
	Teachers		mgr Agata Majkowska				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15		10.0		10.0	35
Subject objectives	Understanding and familiarization by students of the Faculty of Management with the basic concepts, design, and use of databases, along with the SQL database language.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[FiRMU2_W02] The student has an extended and organized knowledge of various types of economic structures and institutions and the changes occurring in them, particularly the banking system, insurance system, tax system, financial markets, and organization of the public finance system and private sector. The student knows the interrelationships between these structures and social institutions on a national and international scale.	Has in-depth knowledge of various types of economic structures and the changes occurring within them, based on insights derived from database information.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[IiEMU2_W02] The student has an in-depth knowledge of economic structures and institutions, the processes taking place in them, the connections between them and their dynamics, and has an in-depth knowledge of the phenomena and processes taking place in their environment.	Has in-depth knowledge of economic structures and institutions, the processes occurring within them, their interrelationships, and their dynamics, supported by database processing.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work [SW5] implementation of a problem task
	[ZARZMU2_U08] The student correctly uses complex terminology in the field of social sciences, especially in the discipline of management and quality studies, clearly and communicatively expresses his point of view.	Correctly uses complex terminology from the field of social sciences, particularly in the discipline of management and quality sciences, and clearly and effectively communicates conclusions based on information from databases.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[FiRMU2_U08] The student has an in-depth ability to prepare typical written works, oral speeches, and presentations in Polish concerning specific issues in finance and accounting using basic theoretical approaches and various sources of information.	Has the ability to prepare a project report, deliver an oral presentation, and present the results of an analysis based on an SQL query related to financial issues.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[ZARZMU2_W02] The student has an expanded knowledge of the relationship between the disciplines of the social sciences crucial to understanding the essence of economic processes.	Possesses advanced knowledge of the relationships between social science disciplines, such as the use of relational databases and the SQL language in management and finance.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[IiEMU2_U08] The student can analyse business needs and, as appropriate, configure and apply modern information and communication technologies in business management and business communication.	Is able to analyze business needs and appropriately use relational databases to support enterprise management and business communication.	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU5] implementation of a problem task
Subject contents	1. Introduction to SQL and Data 2. Filtering and Sorting Data for Insights 3. Aggregating Data Summaries for Reporting 4. Understanding Client Portfolios with Joins 5. Segmentation and Client Profiling 6. Time-Based Analysis and Trends 7. Creating Visual Reports and Dashboards in Excel 8. Final Project From Data to Actionable Insights		
Prerequisites and co-requisites	Knowledge of basic concepts in finance and management.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	51.0%	100.0%
Recommended reading	Basic literature	Itzik Ben-Gan Podstawy języka T-SQL: Microsoft SQL Server 2022 Thomas Connolly, Carolyn Begg, Systemy baz danych: praktyczne metody projektowania, implementacji i zarządzania, Wydawnictwo RM	
	Supplementary literature	1. Izik Ben-Gan Zapytanie w języku T-SQL w Microsoft SQL Server 2014 i SQL Server 2012 2. Wiloetta Matosek, Język SQL w bazie danych Oracle 10g, 3. Wydawnictwo Uniwersytetu Gdańskiego 4. Anthony Molinaro, SQL Cookbook, O'Reilly 5. Alan Beaulieu, Learning SQL, O'Reilly	
	eResources addresses		

Example issues/ example questions/ tasks being completed	• Display the loans of clients who have payment delays exceeding 30 days. • Display the amount of monthly interest on cash loans assuming the interest rate is 3 percentage points higher than the current rate.
Work placement	Not applicable

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