



## Subject card

Subject name and code	Data Mining, PG_00049365						
Field of study	Informatics						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2023/2024		
Education level	second-cycle studies		Subject group		Optional subject group 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		exam		
Conducting unit	Department of Biomedical Engineering -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Agata Kołakowska				
	Teachers		dr inż. Agata Kołakowska				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	18.0	0.0	15.0	0.0	0.0	33
	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	33		10.0		57.0	100
Subject objectives	The aim of the course is to introduce students with knowledge and skills in the basics of data mining.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U05] can plan and conduct experiments related to the field of study, including computer simulations and measurements; interpret obtained results and draw conclusions		The student can analyse data sources -their contents and their formats. He or she knows how to design and implement the process of data preprocessing and is able to conduct the data mining process.		[SU1] Assessment of task fulfilment		
	[K7_W41] Knows and understands, to an increased extent, the standards, production methods, life cycle and development trends of software as well as information systems and applications.		The student designs a data mining process. He or she knows the fundamental methods and algorithms used in the data mining process.		[SW1] Assessment of factual knowledge		
Subject contents	Basis of data mining—the role of data mining and methods. Data preprocessing methods. 11. Association rules –selected methods. Data classification in data mining. Measures and methods used for the evaluation of rules. Deep learning. Knowledge formulation, filtration and visualization. Examples of systems and applications. Multimedia data retrieval. Multimedia data mining.						
Prerequisites and co-requisites	database course, fundamentals of computer programming (C/C++/Java)						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	laboratory	50.0%	40.0%
	exam	50.0%	40.0%
	test and assignments	50.0%	20.0%
Recommended reading	Basic literature	Daniel T. Larose, Odkrywanie wiedzy z danych Wprowadzenie do eksploracji danych, PWN, 2006 Jiawei Han, Micheline Kamber, Data Mining: Concepts and Techniques, Morgan-Kaufmann, 2006 J. Rumi ski, Wprowadzenie do hurtownii i eskploracji danych, Wydawnictwo Politechniki Gda skiej, Gda sk, 2015.	
	Supplementary literature	brak	
	eResources addresses	Adresy na platformie eNauczanie: Eksploracja danych MSU 2023/24 - Moodle ID: 29031 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=29031">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=29031</a>	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		