GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Data Mining, PG_00049365		
Field of study	Informatics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
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 assigments	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:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		