GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Transfer, collection and data security, PG_00044137		
Field of study	Mathematics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Applied Mathematics -> Faculty of Applied Physics and Mathematics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Magdalena Chmara	
	Teachers	dr hab. Paweł Pilarczyk dr inż. Magdalena Chmara	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	15.0	15.0	0.0	60

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	60	5.0	35.0	100

Subject objectives

The purpose of the course is to familiarize you with the formats and tools for secure data storage, analysis and transmission

Learning outcomes

Course outcome	Subject outcome	Method of verification

Subject contents

- overview of different types of databases
  - creation of database applications
  - data transmission on the internet
  - OSI model
  - Security of databases
  - RODO
  - elements of cryptography
  - threats to data

Prerequisites and co-requisites

databases and programming

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Project	60.0%	34.0%
Laboratory	60.0%	33.0%
Lecture	60.0%	33.0%

Recommended reading

Basic literature

Deshpande, Prachi S., et al. *Security and Data Storage Aspect in Cloud Computing by Prachi S. Deshpande, Subhash C. Sharma, Sateesh K. Peddoju.* Springer Singapore, 2019.

Shannon Bradshaw Eoin Brazil, Chodorow, Kristina. *MongoDB: Powerful and Scalable Data Storage* OReilly, 2019.

Supplementary literature

Hu, Fei. *Big Data: Storage, Sharing, and Security / Edited by Fei Hu.* CRC Press, 2016.

	eResources addresses	Uzupełniające Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	How to keep your data safe on the Internet? The differences between the HTTP and HTTPS protocols. Differences between relational and graph databases.	
Work placement	Not applicable	

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