GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Internet services architectures, PG_00045384		
Field of study	Data Engineering		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Computer Architecture -> Faculty of Electronics, Telecommunications and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Joanna Szłapczyńska	
	Teachers	dr hab. inż. Joanna Szłapczyńska	

Lesson types and methods of instruction							
	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	15.0	0.0	0.0	45
	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	45	6.0	49.0	100

Subject objectives	The goal is to make students familiar with modern architectures of distributed systems as well as technologies implementing those architectures.		
Learning outcomes	Course outcome	Subject outcome	Method of verification

Subject contents	1. Passing criteria 2. What is cloud computing 3. Cloud economics 4. Basic cloud services 5. Security in the cloud 6. Databases in the cloud 7. Flexibility of cloud applications 8. High availability and fault tolerance 9. Cloud infrastructure management automatization 10. Data storage in the cloud 11. Reliability of cloud applications 12. Performance of cloud applications 13. Cost effectiveness 14. Design patterns for cloud applications
Prerequisites and co-requisites	Basic knowledge of virtualization and Linux-based operating systems
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
laboratory exercises	50.0%	50.0%
exam	50.0%	50.0%

Recommended reading	Basic literature	1. Lecture notes available on eNauczanie platform 2. Aurobindo Sarkar, Amit Shah, Learning AWS, 2015 3. Andreas Wittig, Michael Wittig, Amazon Web Services in Action, 2015
	Supplementary literature	1. AWS platform documentation
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Design and implementation of a cloud application taking advantage of load-balancing mechanisms Design and implementation of a cloud application using databases Design and implementation of a cloud application taking advantage of auto-scaling mechanisms	
Work placement	Not applicable	

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