



Subject card

Subject name and code	Networks Management, PG_00047957						
Field of study	Informatics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2027/2028		
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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Computer Communications -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Krzysztof Gierłowski				
	Teachers		dr inż. Tomasz Gierszewski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	30
	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	30		2.0		18.0	50
Subject objectives	The purpose of the course is to introduce theoretical knowledge and practical skills related to computer network management. Both management theory (network management models) / protocols, and specific tools, solutions and systems are covered by lecture and practical project.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U07] can apply methods of process and function support, specific to the field of study	Student is capable of tasks related to network and service management and monitoring.	[SU1] Assessment of task fulfilment
	[K6_W44] knows and understands, to an advanced extent, architecture, design principles and methods of hardware and software support for local and distributed information systems, including computing systems, databases, computer networks and information applications, as well as the principles of human-computer interaction, the operation and evaluation criteria of data processing, storage and transfer methods, including computational algorithms, artificial intelligence and data mining as well as standards and methods of IT systems administration, monitoring of processes and robustness to undesirable phenomena and activities	Student knows different network management solutions and is capable of choosing them according to network environment properties.	[SW1] Assessment of factual knowledge
	[K6_W03] knows and understands, to an advanced extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum	Student knows and applies complex network management and maintenance solutions.	[SW1] Assessment of factual knowledge
	[K6_U09] can carry out a critical analysis of the functioning of existing technical solutions and assess these solutions, as well as apply experience related to the maintenance of technical systems, devices and facilities typical for the field of studies, gained in the professional engineering environment	Student is capable of configuring and maintaining a computer network.	[SU1] Assessment of task fulfilment
Subject contents	<p>Theory of network management</p> <ul style="list-style-type: none"> <li>network management models,</li> <li>classes of IP systems.</li> </ul> <p>Management methods</p> <ul style="list-style-type: none"> <li>types, architectures,</li> <li>protocols.</li> </ul> <p>Network monitoring</p> <ul style="list-style-type: none"> <li>problems, methods, use-cases,</li> <li>tools and systems.</li> </ul> <p>Wireless network management</p> <ul style="list-style-type: none"> <li>architectures,</li> <li>characteristics,</li> <li>enterprise systems,</li> <li>3GPP systems.</li> </ul>		
Prerequisites and co-requisites	Basic familiarity with computer network and IP network operation.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project	50.0%	50.0%
	Written exam	50.0%	50.0%
Recommended reading	Basic literature	W. Stallings: "Protokoły SNMP i RMON", Helion, Gliwice 2003	
	Supplementary literature	No requirements	
	eResources addresses	Adresy na platformie eNauczanie:	

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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