



Subject card

Subject name and code	Network Operating Systems, PG_00047744						
Field of study	Informatics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
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 Computer Communications -> Faculty of Electronics Telecommunications and Informatics -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Wojciech Gumiński				
	Teachers		dr inż. Wojciech Gumiński mgr inż. Janusz Czaja				
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 main objective of the course is to provide students with the operation, construction and configuration of network operating systems.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_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 advanced technical systems, devices and facilities typical for the field of studies, gained in the professional engineering environment		Students will get practical experience in administration of application servers.		[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		
	[K7_W03] knows and understands, to an increased 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		Students will get practical experiences in configuring network sharing of servers resources.		[SW1] Assessment of factual knowledge		
Subject contents	Network operating systems classification. NOS tasks. TCP/IP software in NOS structure. Internet protocol – IP. Transmission Control Protocol – TCP state diagram. Network socket communication. Network services. Network services configuration in Windows Server, Linux and Netware. Novell Directory Services – eDirectory. Windows domain. Active Directory. Remote access. Network printing. NOS security. Administration tools. Windows and Linux workstation network configuration. Windows and Linux server network configuration. DNS, DHCP, ARP, NAT, PROXY, Firewall. Network sharing and printing. Users and groups privileges and restrictions. Domain services in Windows and Netware.						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Written examination	50.0%	40.0%
	Midterm colloquium	50.0%	60.0%
Recommended reading	Basic literature	A. Tanenbaum, "Modern Operating Systems"; A. Tanenbaum "Computer networks"; R. Morimoto, "Windows Server"; C. Schroder, "Sieci Linux"	
	Supplementary literature	No requirements	
	eResources addresses		
Example issues/ example questions/ tasks being completed	DHCP configuration		
	DNS configuration		
	Configuration of Active Directory privileges		
Work placement	Not applicable		

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