GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Network Operating Systems, PG_00047744		
Field of study	Informatics		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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 -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Wojciech Gumiński	
	Teachers	dr inż. Wojciech Gumiński mgr inż. Janusz Czaja	

Lesson types

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_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
[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.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject

Subject contents

Course content – lecture
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

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Midterm colloquium</td><td>50.0%</td><td>60.0%</td></tr>
<tr><td>Written examination</td><td>50.0%</td><td>40.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>A. Tanenbaum, "Modern Operating Systems";

A. Tanenbaum "Computer networks";

R. Morimoto, "Windows Server";

C. Schroder, "Sieci Linux"</td></tr>
<tr><td>Supplementary literature</td><td>No requirements</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">DHCP configuration

DNS configuration

Configuration of Active Directory privileges</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
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