

<b>1. Field of study</b>	<b>Computer Science</b>
2. Faculty	Faculty of Science and Technology
3. Academic year of entry	2022/2023 (summer term), 2023/2024 (summer term), 2024/2025 (summer term)
4. Level of qualifications/degree	second-cycle studies
5. Degree profile	general academic
6. Mode of study	full-time

**Module:** Network Systems Security

**Module code:** W4-IN-S2-20-F-BSS

**1. Number of the ECTS credits:** 4

<b>2. Learning outcomes of the module</b>			
<b>code</b>	<b>description</b>	<b>learning outcomes of the programme</b>	<b>level of competence (scale 1-5)</b>
M_001	Understands the need to protect network devices.	K_W03	3
M_002	Understands the need to encrypt and tunneling transmission on the Internet - IPSec, SSL, VPN.	K_W03 K_W06	2 2
M_003	Understands the need to limit user access to network resources - AAA (Authentication, authorisation and accounting).	K_W03 K_W06 K_W08	1 1 1
M_004	Can implement a firewall.	K_K02 K_U08 K_U10	1 2 1
M_005	Can analyze network traffic.	K_U01 K_U08 K_U09	1 2 1

<b>3. Module description</b>	
<b>Description</b>	Aim of the module is familiarizing with issues connected with designing, and operation of secure computer networks and behavior-based security.
<b>Prerequisites</b>	

<b>4. Assessment of the learning outcomes of the module</b>			
<b>code</b>	<b>type</b>	<b>description</b>	<b>learning outcomes of the module</b>
W_001	Module credit.	Questions from lecture subject matter.	M_001, M_002, M_003
W_002	Conversation during tasks crediting.	Checks the skill of generalizing knowledge acquired during tasks solving.	M_004, M_005

<b>5. Forms of teaching</b>						
<b>code</b>	<b>form of teaching</b>			<b>required hours of student's own work</b>		<b>assessment of the learning outcomes of the module</b>
	<b>type</b>	<b>description (including teaching methods)</b>	<b>number of hours</b>	<b>description</b>	<b>number of hours</b>	
Z_001	lecture	Content available in the form of multimedia transfer.	15	Preparing for credit.	30	W_001
Z_002	laboratory classes	Exercises referring to network security and LAN networks configuring.	30	Design and implementation of FireWall.	45	W_002