

DESCRIPTION OF STUDY MODULE*

Study programme Applied Informatics and Programming

Study module COMPUTER NETWORK SECURITY **Credits in total** 5

Learning outcomes	
<ul style="list-style-type: none"> - Able to configure, diagnose and eliminate network security breaches and failure. - Able to find a suitable command to configure network equipment. - Able to ensure the security of the VPN. - Able to ensure network security against information leaks and hacking. - Self-study using Netacad environment. 	
Aims of study module	
<p>Aim of the course - to provide the knowledge and skills to guarantee safety of computer network. Students must be able to select the most appropriate telecommunication and computer network technology, and configure basic network settings.</p>	
Annotation of a study module	
<p>This course provides students with the knowledge of computer network security. The course provides an overview of the values and principles of safety, malicious attacks, the most commonly used authentication protocols. The relevant encryption technology and the use of the TCP / IP protocol violations and measures to ensure data security with VPN and IPsec protocols. Students are introduced to a variety of communication media and possible threats. The recommendations are learned which helps to prevent system malfunctions caused by technical failure or other unforeseen events.</p>	
Topics of the subject	
<ul style="list-style-type: none"> 1. Switching and switches. 2. Spanning Tree Protocol <p>Laboratory work No. 1</p> <ul style="list-style-type: none"> 3. Virtual LAN and VTP 4. Network security <p>Laboratory work No. 2</p> <ul style="list-style-type: none"> 5. Access Lists 6. Network Address Translation <p>Laboratory work No. 3</p>	
Procedure for assessment of knowledge and competences	
<p>Applicable criterion-ten-point scale, and the cumulative assessment scheme: laboratory work - 0.15 - 0.2 and exam 0.5 of evaluation score, which is calculated by the weighted average method. Subject absorption final rating is calculated only if all self-employment (individual homework) assignments and control work is handed over and evaluated positive. $F = L1*0.2+L2*0.15+L3*0.15+E*0.5$</p>	
Main literature	
<ul style="list-style-type: none"> 1. A. Balchunas (2013) Cisco CCNA Study Guide. 304 p. 2. Cisco material in NETACAD system. 3. T. Lammle (2013) CCNA Routing and Switching Study Guide. 1178 p. 	

* Short form