Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Петренко Вячеслав Иванович
Должность: и.о. директора Института цифрового развития
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Discipline annotation

Discipline name	**Защищенные локальные вычислительные сети / Secured local area networks**
Summary	Internet and possibilities of its use. Internet service providers / Communication with the Internet service provider. OSI model. Physical layer protocols: Ethernet and 802.11. Link layer protocols: ARP, MAC addressing. TCP/IP protocol stack. Planning the addressing structure. IP addressing on the LAN. Application of NAT and PAT. Network upgrade planning. IPv4 and IPv6 protocols. Transport layer protocols: TCP, UDP. Principles of switching in networks. Setting up network devices. Configuring and connecting client devices to the ISP network. Routing. Dynamic routing protocols. Firewalling. Classification and operating principles of firewalls. Tunneling traffic. Troubleshooting the network.
Learning outcomes of the discipline	- determines the required composition, placement features of the CMTN (communication means of telecommunication networks), as well as software and hardware (including cryptographic) and technical means and systems for protecting the CMTN against unauthorized access; - organizes and carries out the installation and configuration of the CMTN, as well as software and hardware (including cryptographic) and technical means and systems for protecting the CMTN against unauthorized access; - installs and configures the software necessary to manage the CMTN and their protection against unauthorized access - forms the goals, priorities, duties and powers of the personnel serving the facilities and CMTN, the means and systems for their protection against unauthorized access; distributes the duties and powers of the personnel, the service facilities and CMTN , the means and systems for their protection against unauthorized access; checks the level of qualification of the personnel serving the facilities and CMTN, means and systems for their protection against unauthorized access, including when hiring; - sets tasks for the personnel to ensure the protection of the CMTN against unauthorized access and organizes their implementation; organizes control over the implementation of organizational and technical measures to ensure the protection of the CMTN against unauthorized access; organizes the redistribution of duties and powers of personnel serving the facilities and CMTN, means and systems for their protection against unauthorized access; - has mastered the goals and objectives of personnel management, service facilities and CMTN, means and systems for their protection against unauthorized access; has mastered the methodology for choosing and organizing management decisions to ensure the protection of telecommunication networks against unauthorized access; uses the guidance and methodological documents of the authorized federal executive authorities for information protection - highlights the principles of operation of information security tools in operating systems including those using cryptographic algorithms; - configures operating system security policies; - develops the procedure for applying hardware and software for

	information protection in operating systems - generates configuration templates for software and hardware information protection in computer networks; - configures software and hardware for building computer networks using cryptographic information protection; - controls the correct operation of software and hardware for information protection in computer networks; - manages firewalls in computer networks in accordance with applicable requirements
Workload, c. u.	8 c. u.
Reporting Forms	Exam - 4th semester Course paper
List of essential and supplementary literature necessary for mastering the discipline	
Essential literature	1. Olifer V. G. Computer networks. Principles, technologies, protocols. - St. Petersburg, 2012. - 944 p. 2. Golovin Yu. A. Information networks. - Moscow: Academia, 2012. - 384 p. 3. Peskova S. A. Networks and communications. - Moscow: Academia, 2012. - 352 p.
Supplementary literature	1. Izbachkov Yu. S. Information systems. - St. Petersburg: Piter, 2013.- 656 p. 2. Tannenbaum E. S. Computer networks. - St. Petersburg: Piter, 2013.