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ИНСТИТУТ ОБЩЕСТВОЗНАНИЯ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
Federal State Autonomous Educational Institution of Higher Education
"NORTH CAUCASUS FEDERAL UNIVERSITY"

APPROVED BY
Acting Director of the Institute
Advanced Engineering
A.A. Porokhnya

DISCIPLINE ASSESSMENT TOOLS FUND
"Personal cybersecurity"

Field of study	11.03.02 Infocommunication Technologies and Communication Systems
Profile	Intelligent Data Processing in Infocommunication Systems and Networks
Year of start of training	2026
Form of study	Full-time
Implemented in a semester	1

Introduction

1. Purpose. The Assessment Tools Fund (ASF) is intended for current monitoring of progress and intermediate certification in the discipline "Personal Cybersecurity" of students studying in the field of training 11.03.02 Infocommunication Technologies and Communication Systems, direction (profile) "Intelligent Data Processing in Infocommunication Systems and Networks".

2. FOS is an appendix to the program of the discipline (module) "Personal Cybersecurity" in accordance with the educational program of higher education in the field of training 11.03.02 Infocommunication Technologies and Communication Systems, direction (profile) "Intelligent Data Processing in Infocommunication Systems and Networks".

3. Developer(s) Anikuev S.V.

4. An examination of the FOC was carried out.

Members of the expert group:

Chairman: N.Y. Bratchenko, Chairman of the CMT of the Institute of Advanced Engineering, Associate Professor of the Department of Digital, Robotic Systems and Electronics of the Institute of Advanced Engineering.

Members of the Commission:

V.P. Mochalov, Professor of the Department of Digital, Robotic Systems and Electronics of the Institute of Advanced Engineering.

S.V. Melnikov, Senior Researcher of the Interdisciplinary Training and Research Center for Agricultural Technologies, Associate Professor of the Department of Digital, Robotic Systems and Electronics of the Institute of Advanced Engineering.

Representative of the employer's organization:

Mironov V.A., General Director of Orintex LLC.

Expert opinion: The Fund of Assessment Tools corresponds to the EP HE in the field of training 11.03.02 Infocommunication Technologies and Communication Systems, direction (profile) "Intelligent Data Processing in Infocommunication Systems and Networks". and is recommended for assessing the level of competence formation during the current monitoring of progress and intermediate certification of students in the discipline "Personal Cybersecurity".

5. The validity period of the FAT shall be determined by the period of implementation of the educational programme.

1. Description of the criteria for assessing competence at various stages of their formation, description of assessment scales

Competency(s), indicator(s)	Levels of competence formation(s),			
	The minimum level has not been reached (unsatisfactory) 2 points	Minimum level (satisfactory) 3 points	Intermediate level (good) 4 points	High level (excellent) 5 points
<i>Competence:</i> UK-1. Able to search, critically analyze and synthesize information, apply a systematic approach to solving problems				
Learning outcomes in the discipline (module): <i>Indicator:</i> ID-1 UK-1 identifies a problem situation, carries out its multivariate analysis and diagnostics based on a systematic approach.	in insufficient volume, ID-1 UK-1 identifies a problem situation, carries out its multifactorial analysis and diagnostics based on a systematic approach	In the minimum volume, ID-1 UK-1 identifies a problem situation, carries out its multifactorial analysis and diagnostics based on a systematic approach	In sufficient volume, ID-1 UK-1 identifies a problem situation, carries out its multifactorial analysis and diagnostics based on a systematic approach.	In full, ID-1 UK-1 identifies a problem situation, carries out its multifactorial analysis and diagnostics based on a systematic approach
Learning outcomes in the discipline (module): <i>Indicator:</i> ID-2 UK-1 searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation;	insufficiently searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation;	carries out the search, selection and systematization of information to determine alternative options for strategic solutions in a problem situation to a minimum extent;	carries out a sufficient search, selection and systematization of information to determine alternative options for strategic solutions in a problem situation;	fully searches, selects and systematizes information to determine alternative options for strategic solutions in a problem situation;

Learning outcomes in the discipline (module): <i>Indicator:</i> ID-3 UK-1 determines and assesses the risks of possible solutions to a problem situation, chooses the best option for its solution	insufficiently identifies and assesses the risks of possible solutions to a problem situation, chooses the best option for its solution	to the minimum extent determines and assesses the risks of possible solutions to a problem situation, chooses the best option for its solution	sufficiently identifies and assesses the risks of possible solutions to a problem situation, chooses the best option for its solution	fully identifies and assesses the risks of possible solutions to a problem situation, chooses the best option for its solution
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Assessment of the level of competence in the discipline is carried out on the basis of the "Regulation on the current monitoring of progress and intermediate certification of students in educational programs of higher education - bachelor's programs, specialist programs, master's programs - in the Federal State Autonomous Educational Institution of Higher Education "North Caucasus Federal University" in the current edition.

ASSESSMENT TOOLS FOR CHECKING THE LEVEL OF COMPETENCE FORMATION

Job Number	Correct answer	Content of the question	Competence
		Form of study OFO semester 1	
	b	The most common means of influencing the office network are: a) Weak traffic, information deception, viruses on the Internet b) Viruses in the network, logic mines (stashes), information interception c) Computer failures, changes in administration, topology	UK-1
	in	Name of the information to be protected (according to regulations, network rules, systems): a) Regulated b) Legal c) Protected	UK-1
	a	What is a security policy in a system (network)? It is a complex: a) Guidelines, requirements for ensuring the necessary level of security b) Instructions, algorithms of user behavior in the network c) Norms of information law observed on the Internet	UK-1
	in	The most important in the implementation of protective security policy measures is the following: a) Audit, analysis of the costs of protective measures b) Audit, safety analysis c) Audit, analysis of vulnerabilities, risk situations	UK-1
	a	What is a threat source? a) a potential attacker b) the intruder c) there is no correct answer	UK-1
	a	What is a window of danger? a) the period of time from the moment when the possibility of a weak point appears to the moment when the gap is eliminated. b) a set of interrelated programs for solving problems of a certain class of a specific subject area c) a formalized language for describing the tasks of the algorithm for solving the user's problem on the computer	UK-1
	a	Information Security:	UK-1-

		a) protection of information and supporting infrastructure from accidental or deliberate influences of natural or accidental nature, which may cause unacceptable damage to the subjects of information relations, including owners and users of information and supporting infrastructure b) the software product and databases must be protected in several areas from impact c) there is no correct answer	
	b	Data protection: a) a small program to accomplish a specific task b) a set of measures aimed at ensuring information security c) the process of developing the database structure in accordance with the requirements of users	UK-1
	a	Information security depends on the following factors: a) computers, supporting infrastructure b) users c) information	UK-1
	in	The main sources of internal failures are: a) deviation from the established rules of operation b) data destruction c) all answers are correct	UK-1
	a	In relation to the supporting infrastructure, it is recommended to consider the following threats: a) the inability and unwillingness of the service personnel or the user to perform their duties b) process a large amount of program information c) there is no correct answer	UK-1
	a	Information leakage in the system is a situation characterized by: a) Loss of data in the system b) Changing the form of information c) Changes in the content of information	UK-1
	a, b	The property of information that is most relevant in ensuring information security is: (a) Integrity b) Accessibility c) Relevance	UK-1
	in	Determine when it is appropriate not to take any action on the identified risks: (a) Where risks cannot be taken into account for political reasons b) to ensure good security, all risks must be taken into account and reduced	UK-1

		c) when the value of countermeasures exceeds the value of the asset and potential losses	
	b	What is a security policy? a) detailed documents on handling security incidents b) broad, high-level management statements c) general guidelines for achieving a certain level of safety	UK-1
	in	Choose which of the following techniques is the most important when choosing specific protective measures: (a) Risk analysis b) ALE results c) cost/benefit analysis	UK-1
	a	Threat to an information system (computer network): a) Probable event b) Deterministic (always definite) event c) An event that occurs periodically	UK-1
	a	Types of security threats (networks, systems) are: a) Programmatic, technical, organizational, technological b) Server, client, satellite, terrestrial c) Personal, corporate, social, national	UK-1
	a	Finally, the responsibility for the protection of data in a computer network is borne by: a) Network owner b) Network Administrator c) Network User	UK-1
	in	According to the mechanism of distribution of polyethylene disorders, the following are distinguished: a) viruses b) worms c) all answers are correct	UK-1
	a	What is a failure, errors, failure? a) accidental threats b) deliberate threats c) natural threats	UK-1
	a	Define what a failure is:	UK-1

		a) impairment of the system element, which leads to the impossibility of performing its functions b) a certain sequence of actions necessary to perform a specific task c) a structure that determines the sequence of execution and interrelations of processes	
	a	Define what an error is: a) incorrect performance of one or more functions by the element, occurring as a result of a specific state b) disruption of the performance of an element of the system, which leads to the impossibility of performing its functions c) negative impact on the program	UK-1
	in	Confidentiality is: a) protection of programs and software complexes that provide technology for development, debugging and implementation of created software products b) Description of procedures c) protection against unauthorized access to information	UK-1
	a	Determine what information systems are created for: a) receive certain information services b) information processing c) both variants are correct	UK-1
	a	The procedure is: a) step-by-step instructions for completing the task b) mandatory actions c) guidance on actions in situations related to safety, but not described in the standards	UK-1
	b	Determine which factor is most important in order to be sure of successful security in the company: a) conducting safety trainings for all employees b) support from top management c) effective protective measures and methods of their implementation	UK-1
	a	What is a glitch? a) such a violation of the operability of any element of the system, as a result of which the functions are performed incorrectly at a given moment b) incorrect performance of one or more functions by the element, which occurs as a result of a specific state	UK-1

		c) object-method	
	a	What is a side effect? a) negative impact on the system as a whole or individual elements b) malfunction of any element of the system, as a result of which the functions are performed incorrectly at a given moment c) impairment of the system element, which leads to the impossibility of performing its functions	UK-1
	b	Refers to the human component of GIS: (a) System ports b) administration c) Software	UK-1
	in	Select what is related to the legal methods that ensure information security: (a) Development of legal data hardware b) Development and installation of activity logs in all computer legal networks c) Development and specification of legal normative acts of ensuring security	UK-1
	b	The main sources of information security threats are: a) Theft of hard drives, network connection, insider b) Data interception, data theft, re-architecting of the system c) Theft of data, bribery of system administrators, violation of work regulations	UK-1
	a	Identify the types of information security: a) Personal, corporate, state b) Client, server, network c) Local, global, mixed	UK-1
	a	Note the bulk of information security threats: a) Trojan horses b) Spyware c) Worms	UK-1
	b	The type of identification and authentication that has become the most common: a) PKI systems b) permanent passwords c) one-time passwords	UK-1
	in	Determine for which systems the spread of viruses occurs most dynamically: a) Windows	UK-1

		b) Mac OS c) Android	
	a	The goals of information security are the timely detection and prevention of: a) unauthorized access, influence in the network b) insider in the organization c) emergency situations	UK-1
	a	Identify the main objects of information security: (a) Computer networks, databases b) Information systems, psychological state of users c) Business-oriented, commercial systems	UK-1
	in	The main information security risks are: a) Distortion, reduction of volume, recoding of information b) Technical intervention, disabling of network equipment c) Loss, distortion, leakage of information	UK-1
	a, b	Prerequisites for the emergence of threats (several answer options): a) objective b) subjective c) deliberate	UK-1
	a	Choose what type of threat the misappropriation of someone else's right belongs to: a) violation of the right of ownership b) violation of content c) external environment	UK-1
	in	Select what is related to the resources of A.S. NWIS: (a) Language support b) technical support c) all answers are correct	UK-1
	a, b	According to the activity of the response of information protection systems, systems are divided into (several answer options): a) passive b) active c) semi-passive	UK-1
	a	Basic principles of information security:	UK-1

		a) Economic efficiency of the security system b) Multi-platform implementation of the system c) Strengthening the security of all links of the system	
	b	The main subjects of information security: a) executives, managers, administrators of companies b) bodies of law, state, business c) network databases, firewalls	UK-1
	b	What is EDS? (a) Electronic digital converter b) Digital signature c) Electronic digital processor	UK-1
	b	The most common threats to the information security of a corporate system are: a) Purchase of non-genuine software b) Operating errors and unintentional changes in the system operating mode c) Deliberate introduction of network viruses	UK-1
	in	Identify the most common threats to network information security: a) Distributed client access, equipment failure b) Obsolescence of the network, insiderism c) Failure (failure) of equipment, illegal copying of data	UK-1
	in	The main sources of internal failures are: a) deviation from the established rules of operation b) data destruction c) all answers are correct	UK-1
	a	In relation to the supporting infrastructure, it is recommended to consider the following threats: a) the inability and unwillingness of the service personnel or the user to perform their duties b) process a large amount of program information c) there is no correct answer	UK-1
	b	The most common means of influencing the office network are: a) Weak traffic, information deception, viruses on the Internet b) Viruses in the network, logic mines (stashes), information interception c) Computer failures, changes in administration, topology	UK-1
	a	What are software tools?	UK-1

		a) special programs and systems of information protection in information systems for various purposes b) a structure that determines the sequence of execution and interrelations of processes, actions and tasks throughout the life cycle c) a graph-shaped knowledge model Such models are based on the idea that any expression of meanings can be represented as a set of objects and the relationship between them	
	a	Define what cryptographic tools are: a) special mathematical and algorithmic means of protecting information transmitted through communication networks, stored and processed on computers using encryption methods b) special programs and systems of information protection in information systems for various purposes c) a mechanism that makes it possible to obtain a new class on the basis of an existing one	UK-1
	a	Information security measures are aimed at protecting against: (a) Causing unacceptable harm b) causing any damage c) peeping through the keyhole	UK-1
	g	Which of the following is not among the main aspects of information security: a) accessibility b) integrity c) confidentiality d) truthful reflection of reality	UK-1
	in	Computer crime in the world: a) remains at the same level b) decreases c) grows	UK-1
	b	Which of the following is among the main aspects of information security: a) authenticity - authenticity of subjects and objects b) integrity - the relevance and consistency of information, the protection of information and supporting infrastructure from destruction and unauthorized change c) sterility - the absence of undeclared capabilities	UK-1
	in	The complexity of ensuring information security is a consequence of: a) the lack of attention of the general public to this problem	UK-1

		b) increasing dependence of society on information systems c) rapid progress of information technologies, leading to constant changes in information systems and requirements for them	
	a	The complexity of ensuring information security is a consequence of: a) the complex nature of this problem, which requires the involvement of specialists in various fields for its solution b) the presence of numerous highly qualified intruders c) development of global networks	UK-1
	a, b, c, d	What are the main levels of information security? (a) Legislative b) Organizational and administrative c) Software and hardware (hardware) d) Physical e) Probabilistic (e) Distribution	UK-1

2. Description of the rating scale

Students' progress in each discipline is assessed during current control and intermediate certification.

3. Criteria for assessing competencies*

A grade of "pass" is given to a student if he/she fully carries out a patent search and conducts patent research to study the technical level and trends in the development of technical objects, assess the patentability of new technical solutions, check the patent clearance of technical objects and analyze the competitiveness of technical objects, draw up documents on the conducted patent research in full compliance with the requirements, confidently identify inventions, utility models, industrial designs, fully develop, execute, file and support applications for registration of rights to any intellectual property.

A grade of "not passed" is given to a student if he/she does not carry out a patent search to a sufficient extent and conducts patent research to study the technical level and trends in the development of technical objects, assess the patentability of new technical solutions, check the patent clearance of technical objects and analyze the competitiveness of technical objects, draw up documents on the conducted patent research in insufficient compliance with the requirements, fragmentarily identify inventions, utility models, and insufficiently draw up applications for registration of rights to certain intellectual property objects.

* in accordance with the results of mastering the discipline and types of tasks