MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
Federal State Autonomous Educational Institution of Higher Education
Far Eastern Federal University
(FEFU)
INSTITUTE OF LIFE SCIENCES AND BIOMEDICINE (SCHOOL)

VALUATION FUND

in the discipline (module) "Information technology in healthcare"

Area of study 32.04.01 Public Health

Master's program "Leadership and governance in public health" (program in English for foreign citizens)

Vladivostok 2023

Universal competencies of graduates and indicators of their achievement:

Task type	Code and name of professional competence (result of mastering)	Code and name of the competency indicator
	UK-1 is able to carry out a critical analysis of problem situations on the basis of a systematic approach, to develop a strategy of action	UK-1.1 Knows the basics of planning and organizing measures to ensure public health on the basis of a systematic approach with the subsequent development of an action strategy to overcome problematic situations
		UK-1.2 Is able to justify the implementation of measures to ensure the protection of public health, properly draw up official medical documents, resolve problem situations on the basis of a systematic approach, and develop an action strategy
		UK-1.3 Possesses the ability to formulate the tasks of planning and organizing measures to ensure the health of the population by conducting a critical analysis of problem situations in a medical organization based on a systematic approach with the subsequent development of an action strategy

Code and name of the competency indicator	Name of the assessment indicator (the result of learning in the discipline)
UK-1.1 Knows the basics of planning and organizing measures to ensure public health on the basis of a systematic approach with the subsequent development of an action strategy to overcome problematic situations	Knows the basics of planning and organizing measures to ensure the health of the population on the basis of a systematic approach with the subsequent development of an action strategy to overcome problematic situations. Is able to plan and organize activities to ensure the protection of public health based on a systematic approach; is able to determine a strategy of action to overcome problematic situations in his/her professional field. Possesses the skill of planning and organizing measures to ensure the protection of public health on the basis of a systematic approach
UK-1.2 Is able to justify the implementation of measures to ensure the protection of public health, properly draw up official medical documents, resolve problem situations on the basis of a systematic approach, and develop an action strategy	He knows the methods of human health protection, the main problem situations in his subject area. Is able to justify the implementation of measures to ensure the protection of public health, properly draw up official medical documents, resolve problem situations on the basis of a systematic approach, and develop an action strategy; Is able to draw up official medical documents, resolve problem situations based on a systematic approach, and develop a strategy of action

	Possesses the skill of carrying out measures to ensure the protection of public health, properly
UK-1.3 Possesses the ability to formulate the tasks of planning and organizing measures to ensure the health of the population by conducting a critical analysis of problem situations in a medical organization based on a systematic approach with the subsequent development of an action strategy	Knows the principles of organizing applied and practical projects and other activities to study and model social, economic, epidemiological and other conditions that affect the health and quality of life of the population based on a systematic approach Able to carry out applied and practical projects and other activities to study and model social, economic, epidemiological and other conditions that affect the health and quality of life of the population, to carry out a critical analysis of problem situations on the basis of a systematic approach She has the skills to organize applied and practical projects and other activities to study and model social, economic, epidemiological and other conditions that affect the health and quality of life of the population, to carry out a critical analysis of problem situations in a medical organization based on a systematic approach with the subsequent development of an action strategy

General professional competencies of graduates and indicators of their achievement:

Task type	Code and name of professional competence (result of mastering)	Code and name of the competency indicator
	OPK-2 Ability to use information technology in professional activities, comply with basic information security requirements	OPK-2.1 Knows and is able to explain the use of information technology
		OPK-2.2 Is able to substantiate the criteria for evaluating IT technologies in practical activities
		OPK-2.3 Possesses the ability to formulate and explain the need to use information technologies in the work of medical organizations in compliance with the basic requirements of information security

Code and name of the competency indicator	Name of the assessment indicator (the result of learning in the discipline)
OPK-2.1 Knows and is able to explain the use of information technology	Knows modern information technologies and software tools used in professional activities She is able to use modern information technologies and software tools to solve professional problems.

		Proficient in collecting, processing, assessing the reliability of results and providing the information obtained using modern information technologies and software
OPK-2.2 Is able to substantiate the criteria for evaluating IT technologies in practical activities	Knows the criteria for evaluating IT technologies in their practical activities Able to substantiate the criteria for evaluating IT technologies in practical activities Possesses the skill of substantiating the criteria for evaluating IT technologies in practical activities	
OPK-2.3 Possesses the ability to formulate and explain the need to use information technologies in the work of medical organizations in compliance with the basic requirements of information security	Knows the principles of using information technology Is able to apply knowledge on the use of information technologies in practical activities in compliance with the basic requirements of information security Proficient in working with information technologies in healthcare in compliance with the basic requirements of information security	

MONITORING THE ACHIEVEMENT OF THE COURSE OBJECTIVES

Item No.	Supervised modules/sections/topics of the discipline	Codes and Stages of Competency Formation		Valuation Tools – Name	
				Current control	Intermediate Attestation
1	Formulas and functions. Charts & Graphs	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 1-2
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
2	Computer viruses and anti-virus programs	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 3-4
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
3	Work with Microsoft Office Excel 2007. Working with workbook sheets	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 5-6
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
4	Microsoft Excel 2007. Cell Formats,	UK-1.1; UK-1.2;	Knows	Interview UO-1, abstract PR-4	Exam Questions 7-8

				Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
	Functions, Working with Blocks	UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
5	Creation of web-sites	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 9-10
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
6	Microsoft Office Word 2007. Working with tables and images	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 11-12
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
7	Microsoft Office Word 2010. Additional Features	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 13-14
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	
8	Microsoft Office Word 2007. Merge Documents	UK-1.1; UK-1.2; UK-1.3; OPK-2.1; OPK-2.2; OPK-2.3	Knows	Interview UO-1, abstract PR-4	Exam Questions 15-16
			Can	Tests PR-1, essay PR-3, situational case problems PR-11, presentation	
			Owns	Small Group Work, LA-3 Reports	

Scale for assessing the level of competence formation

Code and Competency Statement	Stages of competence formation		criteria	Indicators	Points
UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop a	Knows (Threshold)	principles of organization of applied and practical projects and other activities for the study and modeling of social, economic, epidemiological	Knowledge of the basics of planning and organizing measures to ensure public health based on a critical analysis of	Ability to explain the basics of planning and organizing measures to ensure the protection of public health on the basis of a systematic	45-64

strategy of action		and other conditions affecting the health and quality of life of the population on the basis of a systematic approach	problem situations	approach with the subsequent development of a strategy of action to overcome problematic situations	
	Can (Advanced)	to carry out applied and practical projects and other activities to study and model social, economic, epidemiological and other conditions that affect the health and quality of life of the population, to carry out a critical analysis of problem situations on the basis of a systematic approach	the ability to properly draw up official medical documents, to carry out measures to ensure the health of the population with a critical analysis of problem situations based on a systematic approach	the ability to justify the implementation of measures to ensure the health of the population, to properly draw up official medical documents, to resolve problem situations on the basis of a systematic approach, to develop an action strategy	65-84
	Proficient (High)	skills in organizing applied and practical projects and other activities to study and model social, economic, epidemiological and other conditions that affect the health and quality of life of the population, carrying out a critical analysis of problem situations in a medical organization based on a systematic approach with the	Proficiency in methods of planning and organizing measures to ensure public health on the basis of a critical analysis of problem situations in a medical organization based on a systematic approach	the ability to formulate the tasks of planning and organizing measures to ensure the protection of public health by conducting a critical analysis of problem situations in a medical organization based on a systematic approach with the subsequent development of an action strategy	85-100

			subsequent development of an action strategy		
OPK-2 Ability to use information technology in professional activities, comply with basic information security requirements	Knows (Threshold)	Principles of Using Information Technologies	Knowledge of the basic concepts of information technologies in research processes in medicine	Ability to explain the use of information technology	61-70
	Can (Advanced)	apply knowledge on the use of information technologies in practical activities	Ability to apply IT technologies in practice	Ability to substantiate the criteria for evaluating IT technologies in practice	71-84
	Proficient (High)	skills of working with information technologies in healthcare in compliance with the basic requirements of information security	methods of collecting, processing, analyzing information and their presentation in practice on the basis of information security	ability to formulate and explain the need to use information technologies in the work of medical organizations in compliance with the basic requirements of information security	85-100

I. Assessment Tools for Attestation
Methodological Recommendations Defining the Procedures for Assessing the Results of Mastering the Discipline

Current assessment of students. Current certification of students in the discipline "Information Technologies in Healthcare" is carried out in accordance with local regulations of FEFU and is mandatory.

Current attestation in the discipline "Information Technologies in Healthcare" is carried out in the form of control measures (written survey, defense of practical/laboratory works) to assess the actual results of master's training is carried out by the leading teacher.

The objects of assessment are:

- academic discipline (activity in classes, timeliness of various types of tasks, attendance of all types of classes in the discipline being certified);

- the degree of assimilation of theoretical knowledge;

- the level of mastery of practical skills and abilities in all types of educational work;

- results of independent work.

For each object, a description of the assessment procedures is given in relation to the assessment tools used.

Intermediate attestation of students. Intermediate certification of students in the discipline "Information Technologies in Healthcare" is carried out in accordance with the local regulations of FEFU and is mandatory.

Depending on the type of intermediate control in the discipline and the form of its organization, various criteria for assessing knowledge, skills and abilities can be used.

Intermediate attestation in the discipline "Information Technologies in Healthcare" is carried out in the form of an exam in the form of a written answer.

Test and examination materials. When assessing students' knowledge, the intermediate control takes into account the amount of knowledge, the quality of their assimilation, understanding of the logic of the academic discipline, and the place of each topic in the course. The ability to freely, competently, logically coherently present what has been studied, the ability to defend one's own point of view with arguments are evaluated.

Exam Questions

1. Classification of computer networks by territorial basis: LAN, MAN, WAN networks.

2. Internet. Addressing to the Internet.

3. Internet services: e-mail, mailing lists, teleconferencing, World Wide Web (WWW), file transfer service (FTP), ICQ.

4. TCP/IP protocol stack.

5. Search for information on the Internet.

6. Popular Internet browsers. Search engines.

7. Major foreign search engines.

8. The main Internet protocols are http, telnet, SMTP, HTTP, FTP, POP. Email.

9. Data Protection. Methods of information protection: cryptography, electronic signature, authentication, certification of Web sites.

10. Saving Web pages. Specifics of saving pages that contain frames.

11. HTML. Interpret HTML tags. Basic building blocks of HTML.

12. Headings. Paragraphs. Logical partitions. Display preformatted text.

13. Lists: bulleted, numbered.

14. Creating hyperlinks.

15. Adding graphic elements.

16. Table. Table tag attributes.

Exam Grading Criteria

Exam Assessment	Requirements for the formed competencies
"Excellent"	An "excellent" grade is given to a student if he/she has deeply and firmly mastered the program material, comprehensively, consistently, clearly and logically coherently presents it, is able to closely link theory with practice, freely copes with tasks, questions and other types of application of knowledge, and does not find it difficult to answer when changing tasks, uses the material of monographic literature in the answer, correctly justifies the decision made, has versatile skills and methods of implementation practical tasks;
"Good"	A grade of "good" is given to a student if he/she knows the material well, presents it competently and to the point, without making significant inaccuracies in the answer to the question, correctly applies theoretical provisions in solving practical issues and problems, has the necessary skills and techniques for their implementation;
"Satisfactory"	A grade of "satisfactory" is given to a student if he/she has knowledge only of the main material, but has not mastered its details, makes inaccuracies, insufficiently correct formulations, violations of the logical sequence in the presentation of the program material, has difficulties in performing practical work;
"Unsatisfactory"	An "unsatisfactory" grade is given to a student who does not know a significant part of the program material, makes significant mistakes, is uncertain, and performs practical work with great difficulty.

II. Assessment Tools for Ongoing Performance Appraisal
Criteria for evaluating the abstract

- 100-86 points are given to the student if the student expressed his opinion on the formulated problem, argued it, accurately determining its content and components. The data of domestic and foreign literature, statistical data, information of a regulatory and legal nature are given. The student knows and possesses the skill of independent research work on the research topic; methods and techniques of analysis of theoretical and/or practical aspects of the field under study.

- 85-76 points - the work is characterized by semantic integrity, coherence and consistency of presentation; No more than 1 mistake was made in explaining the meaning or content of the problem. For argumentation, the data of domestic and foreign authors are given. Research skills and abilities have been demonstrated. There are no factual errors related to understanding the problem.

- 75-61 points - the student conducts a fairly independent analysis of the main stages and semantic components of the problem; understands the basic

foundations and theoretical justification of the chosen topic. The main sources on the topic under consideration are involved. No more than 2 errors were made in the meaning or content of the problem.

- 60-50 points - if the work is a paraphrase or a completely rewritten source text without any comments or analysis. The structure and theoretical component of the topic are not disclosed. Three or more than three mistakes have been made in the semantic content of the problem being disclosed.

The control tests are intended for students studying the course "Management and Marketing in Healthcare".

When working with tests, you are asked to choose one answer option out of three or four proposed. At the same time, the complexity of the tests is not the same. Among the proposed tests, there are tests that contain several options for correct answers. The student needs to provide all the correct answers.

The tests are designed for both individual and collective solutions. They can be used in the process of both classroom classes and independent work. The selection of tests necessary for the control of knowledge in the process of intermediate certification is made by each teacher individually.

The results of the test tasks are evaluated by the teacher on a five-point scale for attestation or according to the "pass" - "fail" system. An "excellent" grade is given if you answer more than 90% of the tests offered by the teacher. A "good" score is given if you answer correctly on more than 70% of the tests. The grade is "satisfactory" – with a correct answer to 50% of the proposed tests.

Test tasks

1. The SMTP protocol is designed for...
(a) Receiving e-mail;
b) sending e-mails;
c) Browsing the Web.

2. The FTP service on the Internet is designed to:
a) to create, receive and transmit web pages;
b) for remote control of technical systems;
c) to receive and transmit files of any format;
(d) To enable teleconferencing.

3. The bandwidth of the information transmission channel is measured in (several answer options):
a) bits/s;
 b) Mbps;
c) Mbps;

(d) KB/s;

(e) Bytes;

(f) MB

4. Routing Protocol (IP) provides:

a)management of data transmission equipment and communication channels;

(b) Preservation of mechanical, functional parameters of physical communication in a computer network;

(c) Interpreting the data and preparing them for the user level;

d)delivery of information from the sending computer to the recipient's computer;

(e) Splitting files into IP packets in transit and assembling files in the process of receiving.

5.The three main requirements for computer networks are...

(a) Productivity;

(b) Capacity;

(c) Parallelism;

(d) Reliability;

(e) Capacity;

(f) Integrability

6. A domain is ...

(a) The unit of measurement of the information;

b) the name of the program for communication between computers;

c) the part of the address that identifies the address of the user's computer on the network;

(d) The name of the device that communicates between computers.

7. Teleconferencing is ...

(a) Exchange of letters in global networks;

(b) Hyperlinked information system;

(c) A system for the exchange of information between subscribers of a computer network;

(d) A service for receiving and transferring files of any format.

8. A computer that shares its resources with other computers when working together is called:

(a) An adapter;

(b) Switchboard;

(c) A workstation;

d)the server.

9.Identify the three most important methods of protecting information from illegal distribution:

(a) Encryption;

b)establishment of special attributes of files;

(c) Automatic duplication;

(d) Authentication;

(e) Anti-virus

10.A condensed image of the source code is usually used...

(a) As a key for encrypting the text;

(b) As a public key in symmetric algorithms;

(c) As a result of encrypting the text for its transmission over an insecure channel;

(d) To create an electronic digital signature

11.Which tag is used to create hypertext?

a) <B>... </B>;

b)
... ;

c) <A>... </A>;

d) <TD>... </TD>

12.What attribute sets the background color of the document?

a) bgcolor;

b) background;

c) color;

(d) There is no correct answer

13.How do I divide text with a horizontal bar?

a) <HR>;

b)
;

c) <A>;

d)<EM>

14. How do I italicize text in an HTML document?

(a) Using the tag <B>;

(b) Using the tag <I >;

(c) Using the <U" tag>

15.The definition of the title should be contained within the tag:

a)<Title>... </Title>;

b) <Head>... </Head>;

c)
;

d) <B>... </B>

16. Internet services do not include...

a) E-mail;

(b) Data Transfer Service (FTP);

c) HTML (Hyper Text Markup Language);

d) World Wide Web.

17. The code of the program in the HTML language is ...

(a) A plain text file created in a text editor;

(b) A program written in a special programming language;

(c) A program written in Internet Explorer.

18.What defines the BORDER attribute of a TABLE markup element?

(a) Cell spacing;

(b) The width of the cell;

(c) The width of the border.

19.A tag is:

(a) An instruction to the browser indicating how the text is displayed;

(b) Text that uses special characters;

(c) A pointer to another file or object;

(d) A control sequence of characters for writing Web documents in Hypertext Markup Language.

20.To insert an image into an HTML document, use the following command:

a) <img src="ris.jpg"> ;

b) <img background="ris.jpg"> ;

c) <a href="ris.jpg">

21. What will be displayed on the Web page when you write the following text on the page: <BODY BGCOLOR="BLACK" TEXT="YELLOW"> AAA <FONT COLOR="RED"> BBB</FONT> </BODY>?

(a) Black background, "AAA, BBB" in yellow text;

(b) Black background, "AAA, BBB" in red text;

(c) Black background, "AAA" - yellow, "BBB" - red.

22. HTML is ...

(a) Hypertext transfer protocol;

b)Hypertext markup language;

(c) A group of messages on a specific topic.

23.Internet Explorer allows you to...

a) upload NNTP newsgroups;

b) upload Web pages via HTTP and files via FTP;

c) chat via IRC;

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d) transfer files via FTP

24. One of the search engines on the Internet is...

a) Gov.ru;

b) Lycos;

c) THE BAT;

d) File Search.

25.An electronic digital signature of a document allows the recipient to ...

a)only to make sure that the document has not been altered at the time of transmission;

(b) Only to verify the authenticity of the document, but not to verify the authenticity of the document;

(c) Either verify the correctness of the sender of the document or ensure that the document has not been altered during transmission;

(d) Verify that the electronic document is not misrepresented and verify that the signature belongs to the owner

26. The form of writing an IP address is an entry of the form: xxx.xxx.xxx, where xxx is...

(a) Decimal numbers between 0 and 256;

(b) Decimal numbers from 0 to 255;

(c) Binary code;

(d) Letters of the Latin alphabet.

27.HTTP is...

(a) Hypertext transfer protocol;

(b) Hypertext markup language;

(c) A group of messages on a specific topic.

28.To create a numbered list, use the tag:

a) <OL>;

b) <UL>;

c) <DL>.

29.Specify the correct path to the file:

a) <IMG SRO="http://www.uprlnt.ru/picture/f11el.gif">;

b) <IMG SRO="http://www.uprlnt.ru/picture/f11el.gif>;

c) <IMG SRC="http://www.uprlnt.ru/picture/f11el.gif">.

30.The TR tag specifies:

(a) A row in the table;

(b) Table column;

(c) The border of the table.

31.Hyperlinks on a Web page may provide a link to...

a) only within a given Web page;

b) only on the Web pages of this server;

c) to any Web page in the region;

d) to any Web page of any Internet server.

32.The correct order of tags is as follows:

a) <tag1><tag2><tag3> ... </tag1></tag2></tag3>;

b) <tag1>... </tag1><tag3><tag1>... </tag3></tag1>;

c) <tag1><tag2><tag3> ... </tag3></tag2></tag1>;

d) <tag1>... </tag2><tag3> ... </tag3><tag2>... </tag1>.

33.What will be displayed on the Web page when you write the following text on the page: <TABLE WIDTH=50%> <TR> <TD> AAA </TD> </TR> <TR> <TD> BBB </TD></TR> </TABLE>?

a)   1-row and 1-column table

b)a table of 1 row and 2 columns;

c)A table of 2 rows and 1 column.

34.The hyperlink is specified by the tag:

a)< a src="file.html"> text ;

b)   <a="http://www.da.ru"> text ;

c) text .

35.What does the <ALT> attribute of the <IMG> tag mean?

(a) The width of the frame;

(b) The source of the image;

(c) The height of the picture.

36.The ALIGN attribute is used to:

a) alignment of objects on the screen;

b) specifying the dimensions of the picture;

c) to specify the thickness of the picture frame.

Test Evaluation Criteria

Assessment is carried out in an e-learning session on a hundred-point scale.

The test includes 100 tasks, with a maximum test score of 100.

Within the framework of the current level of knowledge assimilation in the discipline, a test result of at least 61 points is allowed.