

*Federal State Autonomous Educational Institution
higher education "Peoples' Friendship University of Russia"*

Agricultural and Technological Institute

Medical Institute

Recommended by ISSC

THE WORKING PROGRAM OF THE DISCIPLINE

Name of the discipline

Health and Safety

Recommended for direction of training/specialty

31.05.03 Dentistry

Focus of the program

Dentistry

1. Goals and objectives of the discipline.

Target - the formation of students' understanding of the patterns of the formation of hazards and measures to prevent their impact on humans.

Discipline objectives:

- creating a comfortable (normative) state of the environment in the areas of human labor and recreation;
- identification of negative impacts of the habitat of natural, technogenic and anthropogenic origin;
- development and implementation of measures to protect humans and the environment from negative impacts;
- ensuring the stability of the functioning of objects and technical systems in normal and emergency situations;
- making decisions to protect production personnel and the population from possible consequences of accidents, catastrophes, natural disasters and the use of modern means of destruction, as well as taking measures to eliminate their consequences;
- predicting the development of negative impacts and assessing the consequences of their action.

2. Place of discipline in the structure of EP VO:

The discipline " Health and Safety" is a mandatory part of block 1 of the curriculum...

Table 1 shows the previous and subsequent disciplines aimed at the formation of discipline competencies in accordance with the competence matrix of EP HE.

Table No. 1

Prior and subsequent disciplines aimed at the formation of competencies

P / p No.	Code and name of competence	Preceding disciplines	Subsequent disciplines (groups of disciplines)
Universal competences			
1	UC-8. Being able to create and maintain safe conditions in everyday life and professional activity to protect natural environment, ensure sustainable development of society, including in the event of a threat and occurrence of emergencies and military conflicts.		History of medicine; Emergency Medicine; Anesthesiology, resuscitation, intensive care
General professional competencies			
2	GPC-6. Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks		Immunology; General surgery; Epidemiology; Topographic anatomy and operative surgery; Medical elementology; Faculty surgery; Emergency Medicine; Anesthesiology, resuscitation, intensive care
Professional competencies			
3	PC-1. Being able to make an examination of a patient in order to determine a diagnosis.		Immunology; General surgery; Topographic anatomy and operative surgery; Medical rehabilitation; Outpatient therapy;

		Infectious diseases; Pediatrics; obstetrics and gynecology
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3. Requirements for the results of mastering the discipline.

The process of studying the discipline is aimed at the formation of the following competencies:

table 2

Formed competencies

Competencies	Competency name	Competence achievement indicators
UC-8	Being able to create and maintain safe conditions in everyday life and professional activity to protect natural environment, ensure sustainable development of society, including in the event of a threat and occurrence of emergencies and military conflicts.	<p>UC-8.1. Analysing the factors of harmful impact on the vital functions of the elements of the environment (technical means, technological processes, materials, buildings and structures, natural and social phenomena).</p> <p>UC-8.2. Identifying hazardous and harmful factors within the framework of the carried out activities.</p> <p>UC-8.3. Solving problems related to unsafe behaviour and participating in activities to prevent emergencies in the workplace.</p> <p>UC-8.4. Observing and explaining the rules of behaviour in case of emergencies of natural and man-made origin; providing first aid; participating in recovery activities.</p>
GPC - 6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	<p>GPC-6.1. Developing a plan for dental disease treatment taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards.</p> <p>GPC-6.2. Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient.</p> <p>GPC-6.3. Assessing the possible side effects of taking medicinal drugs.</p> <p>GPC-6.4. Providing medical care to a dental patient in emergency or urgent forms.</p> <p>GPC-6.5. Organizing the prevention and treatment of complications, side effects, undesirable reactions, including the unforeseen ones, which can arise from diagnostic or medicinal manipulations, use of drugs and (or) medical devices, non-drug treatment at a dental appointment.</p> <p>GPC-6.6. Organizing personalized treatment of a dental patient, including elderly and senile patients, pregnant women, children with somatic pathologies; evaluating the efficacy and safety of treatment.</p> <p>GPC-6.7. Prescribing medicinal drugs, medical devices, taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of</p>

		<p>medical care taking into account medical care standards.</p> <p>GPC-6.8. Prescribing non-drug treatment taking into account the diagnosis, age and disease pattern in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards.</p> <p>GPC-6.9. Evaluating the efficacy and safety of using medicinal drugs, medical devices and other methods of treatment at a dental appointment.</p>
PC - 1	Being able to make an examination of a patient in order to determine a diagnosis.	<p>PC-1.1. Making an initial examination and/or reexamination of a patient in order to make a preliminary diagnosis.</p> <p>-1.2. Receiving information from patients (their relatives/legal representatives); conducting a questionnaire survey of patients regarding their general health status; identifying concomitant diseases in order to make a preliminary diagnosis</p> <p>PC-1.3. Detecting if patients have dentoalveolar, facial anomalies, deformities and prerequisites for their development, defects in the crowns of teeth and dentition on the basis of the patient examination; laboratory, instrumental, and additional examinations in order to make a preliminary/final diagnosis.</p> <p>PC-1.4. Detecting if patients have risk factors for oncopathology (including various background processes, precancerous conditions) based on laboratory, instrumental and additional examinations in order to make a preliminary/final diagnosis.</p> <p>PC-1.5. Making a preliminary/final diagnosis based on the patient examination; laboratory and instrumental examinations.</p> <p>PC-1.6. Making a final diagnosis based on additional examinations of patients.</p>

As a result of studying the discipline, the student must:

Know:

- theoretical foundations of ensuring the safety of life;
- legal, regulatory, technical and organizational foundations of life safety;
- fundamentals of hygiene, physiology and psychology of work and methods of ensuring comfortable conditions for human activity;
- the consequences of human exposure to hazardous and harmful production factors and methods of protection against them;
- the basics of organizing and managing the actions of production personnel in emergency situations;
- principles and procedure for conducting rescue and other urgent work in the affected areas.
- tasks and organizational structure of the All-Russian Service for Disaster Medicine (VSMK);
- medical forces and equipment designed to provide first aid to the affected population in emergency situations;
- methods and means of protecting the population, patients, medical personnel and property of medical institutions in emergency situations;
- the basics of providing various types of medical care to the affected population.

Be able to:

- evaluate the parameters of negative factors and the degree of their impact in accordance with regulatory requirements;
- rationally and effectively use the means of protecting people and the natural environment from the negative impact of man-made sources and natural disasters;
- competently manage the actions of personnel in the event of emergencies.
- provide first aid to victims in emergency situations;

Own:

- methods of measuring the parameters of negative factors of the working environment;
- the skills of choosing the principles of protection and the use of individual and collective protective equipment in various conditions of activity;
- methods of providing first aid to victims of accidents.

4. Scope of discipline and types of educational work

The total workload of the discipline is 3 credit units.

Type of educational work	Total hours	Semester			
		6			
Classroom lessons (total)	54	54			
Including:					
<i>Lectures</i>					
<i>Practical lessons (PZ)</i>	54	54			
<i>Seminars (C)</i>					
Independent work (total)	54	54			
Total labor intensity hour credits units	108	108			
	3	3			

5. Content of the discipline**5.1. Contents of discipline sections**

P / p No.	The name of the discipline section	Section content (topics)
1.	Basic concepts of the discipline "Life Safety"	Definitions of the basic concepts of the discipline. The importance of life safety of the population in the development of Russia. Components of the study of life safety. Problems and prospects for the development of BZ. Types of assistance, medical triage of victims, medical evacuation of victims. Medical and evacuation support for victims of emergencies.
2.	Theoretical foundations of life safety	Basic concepts, terms and definitions. Characteristic systems "man - environment". Industrial, urban, household, natural environment. Human interaction with the environment. Life preservation law Kurazhkovsky Yu.N. The basics of optimal interaction: comfort, minimization of negative impacts, sustainable development of systems.
3.	Risk	Risk concept. Risk assessment. General classification of risks. Damage. Risk concept.
4.	Natural emergencies and protection of the population from their consequences	Natural emergencies. Basic concepts and definitions, classification of emergency situations: geophysical and geological hazardous phenomena; meteorological and agrometeorological hazards; marine hydrological hazards;

		natural fires. Characteristics of damaging factors of sources of natural emergencies.
five .	Technogenic emergencies and protection of the population from their consequences	Technogenic emergencies. Basic concepts and definitions, classification of emergency situations: fires, explosions, the threat of explosions; accidents with the release (threat of release) of emergency chemically hazardous substances (AHOV); accidents with release (threat of release) of radioactive substances (RS); accidents with the release (threat of release) of biologically hazardous substances (BOV). Striking factors of sources of man-made emergencies. Emergency development phases.
6.	The world. Hazards in daily life and safe behavior	The world around and the person, the nature of their interaction. Man as an object and subject of security. Situations arising in the process of human life. Features of the city as a habitat. Hazardous areas in the city. Emergencies of a criminal nature.
7.	Life safety management	Legal basis for environmental quality management. Laws and regulations. Normalization of the quality of the environment. Civil defense system (GO) of the Russian Federation; the structure and features of the work of medical units in the civil defense system (including medical supply units). The structure and activities of the GO of healthcare facilities (including healthcare facilities, medical supplies - pharmacies); structure and features of the work of non-standard emergency rescue teams (NASF).
eigh t.	Biological and social emergencies	Declaration of a state of emergency and martial law. Social emergencies. Protection against global influences. Terrorism. Pandemics of the 20th - 21st centuries
nine .	Harmful addictions and their social consequences	Computer addiction. The influence of alcohol on the human body. Drug addiction and substance abuse. Smoking and its impact on human health.
10.	Basic principles of the legal support of BZ for medical workers	Basic principles of legal support of BZ. The main legislative acts and standards for providing the population with life-saving. Legal basis for environmental safety. Legal bases of industrial safety, labor protection. Protection of public health and safety. Responsibility for violation of normative legal acts on the life-safety of the population. Basics of mobilization preparation of the health care system; the basics of the health system in wartime (when mobilization is announced)
elev en.	First aid to those affected in emergencies	Cardiopulmonary resuscitation, stopping bleeding, transport immobilization of the victims' extremities. Desmurgy concept. Simulation of various emergency situations. Classification of burns and frostbite. First aid for burns and frostbite. Types of first aid kits. Filling the first aid kit.

5.2. Sections of disciplines and types of classes

P / p No.	The name of the discipline section	Lek.	ETC	Sem.	Lab.	CPC	Total hour.
1.	Basic concepts of the discipline "Life Safety"		4			4	8
2.	Theoretical foundations of life safety		4			4	8

3.	Risk		4			4	8
4.	Natural emergencies and protection of the population from their consequences		4			4	8
5.	Technogenic emergencies and protection of the population from their consequences		4			4	8
6.	The world. Hazards in daily life and safe behavior		4			4	8
7.	Life safety management		4			4	8
8.	Biological and social emergencies		4			4	8
9.	Harmful addictions and their social consequences		4			4	8
10.	Basic principles of the legal support of BZ for medical workers		6			6	12
11.	First aid to those affected in emergencies		12			12	24
12.	TOTAL:		54			54	108

6. Laboratory workshop *not provided*

7. Practical exercises (seminars)

P / p No.	Discipline section number	Practical lessons (seminars)	Labor capacity (hour.)
1.	Basic concepts of the discipline "Life Safety"	<ul style="list-style-type: none"> – Definitions of the basic concepts of the discipline. The importance of life safety of the population in the development of Russia. Components of the study of life safety. Problems and prospects for the development of BZ. – Types of assistance. Medical triage of victims. Medical evacuation of victims. Medical and evacuation support for victims of emergencies. 	4
2.	Theoretical foundations of life safety	<ul style="list-style-type: none"> – The impact of hazards on humans and the technosphere. – Environmentally hazardous factors. 	4
3.	Risk	<ul style="list-style-type: none"> – Protection against hazards in the technosphere. – Providing comfortable living conditions. 	4
4.	Natural emergencies and protection of the population from their consequences	<ul style="list-style-type: none"> – Rules of conduct for earthquakes and volcanic eruptions. – Rules of conduct in the event of a thunderstorm, hurricane, tornado. – Flood Code of Conduct. – Rules of conduct in case of a natural fire. 	4
5.	Technogenic emergencies and protection of the population from their consequences	<ul style="list-style-type: none"> – Code of Conduct for a Domestic Gas Leak. – Rules of conduct for radiation release. – Rules of conduct for the release of chemically harmful substances. – Providing first aid in case of electrical injury. 	4
6.	The world. Hazards in daily life and safe behavior	<ul style="list-style-type: none"> – Rules of conduct at sea (sunstroke, sunburn, rescue of drowning people) – Rules of conduct in case of fire in everyday life. – Rules of conduct on transport. 	4

		<ul style="list-style-type: none"> – Rules for performing artificial respiration. – Rescue of a man who fell through the ice. – First aid for frostbite. – First aid for poisoning. – First aid for bleeding. – Providing first aid in the event of a foreign body entering the respiratory tract. – Rules of conduct for emergencies of a criminal nature. 	
7.	Life safety management	<ul style="list-style-type: none"> – Legal basis for environmental quality management. Laws and regulations. – Normalization of the quality of the environment. – Civil defense system (GO) of the Russian Federation; the structure and features of the work of medical units in the civil defense system (including medical supply units). The structure and activities of the GO of healthcare facilities (including healthcare facilities, medical supplies - pharmacies); structure and features of the work of non-standard emergency rescue teams (NASF). 	4
8.	Biological and social emergencies	<ul style="list-style-type: none"> – Rules of conduct when declaring a state of emergency and martial law. – Rules of conduct for taking hostages. – Social emergencies. – Protection against global influences. – Defense against terrorism. – Quarantine. Observation. Pandemics of the 20th - 21st centuries 	4
9.	Harmful addictions and their social consequences	<ul style="list-style-type: none"> – Computer addiction: Internet addiction, gambling addiction. – The toxic effect of alcohol on the human body. Alcoholism during pregnancy. – Drug addiction and substance abuse. Drug addiction during pregnancy. – Composition of cigarettes and tobacco smoke. Smoking during pregnancy. 	4
10.	Basic principles of the legal support of BZ for medical workers	<ul style="list-style-type: none"> – The main legislative acts and standards for ensuring the population's life-span. Health protection and safety of the population. – Basics of mobilization preparation of the health care system; the basics of the health system in wartime (when mobilization is announced) 	6
11.	First aid to those affected in emergencies	<ul style="list-style-type: none"> – Cardiopulmonary resuscitation, stopping bleeding, – Desmurgy concept. Simulation of various emergency situations. – Classification of burns and frostbite. First aid for burns and frostbite. – Types of first aid kits. Filling the first aid kit. 	12

8. Material and technical support of the discipline:

1. Classrooms equipped with multimedia projectors.
2. Computer classes of ATI and MI, RUDN Information Library Center with access to the RUDN University electronic library system, the Internet.

3. First aid simulator.
4. Educational and laboratory simulator "Security and fire alarm".
5. Mobile automated examination complex.

9. Information support of the discipline

a) software:

a curriculum for the discipline "Life Safety";
testing program "Mentor"

b) databases, information and reference and search systems:

<http://quakes.globalincidentmap.com/>,

<http://www.globalincidentmap.com/>,

http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/quakes_all.php,

http://www.thesis.lebedev.ru/forecast_activity.html

Electronic library system RUDN - EBS RUDN: <http://lib.rudn.ru:8080/MegaPro/Web>

RUDN educational portal (<http://web-local.rudn.ru>);

University library online: <http://www.biblioclub.ru>

National digital resource "RUKONT": <http://rucont.ru>

IQlib: <http://www.iqlib.ru>

Science Direct: <http://www.sciencedirect.com>

EBSCO: <http://search.ebscohost.com>

Sage Publications: <http://online.sagepub.com>

Springer / Kluwer: <http://www.springerlink.com>

Taylor & Francis: <http://www.informaworld.com>

Web of Science: <http://www.isiknowledge.com>

University information system RUSSIA: <http://www.cir.ru/index.jsp>

HaveRUDN University web portal: <http://web-local.rudn.ru>

Student advisor <http://www.studmedlib.ru>

10. Educational and methodological support of the discipline:

a) main literature:

1. Burlakov A.A. Fundamentals of life safety: textbook / A.A. Burlakov. - Electronic text data. - Moscow: GEOTAR-Media, 2020. -- 176 p. : ill. - ISBN 978-5-9704-5430-5.
2. Levchuk I.P. Life safety: study guide / I.P. Levchuk, A.A. Burlakov. - 2nd ed., Rev. and add. ; Electronic text data. - Moscow: GEOTAR-Media, 2020. -- 160 p. - ISBN 978-5-9704-5756-6.

b) additional literature:

1. Belov, S. V. Safety of life: textbook. for universities / S. V. Belov, A. V. Ilnitskaya, A. F. Kozyakov, etc. ; under total. ed. S. V. Belova. - Ed. 3rd, rev. and add. - M. : Higher. shk., 2019.
2. Life safety at work (labor protection): Textbook for universities. Belyakov G.I., series: "Textbooks for universities. Special literature", 2016, Publisher: Publishing house LAN.
3. SanPiN2.22.542-96 "Hygienic requirements for video display terminals, personal computers and work organization". - M. : Goskomsanepidemnadzor of Russia, 2019.
4. Atamanyuk V.G. Civil defense, - M. : Higher school, 2017.

11. Methodical instructions for students on mastering the discipline "Life Safety"

The student is required to attend classes, complete the assignments of the discipline teacher, familiarize himself with the recommended literature, etc. During the certification of the student, the quality of work in the classroom, the level of preparation for independent activity in the chosen field, the quality of the assignments of the discipline teacher, the ability to independently study the educational material are assessed.

In practical classes in the classroom, the relevant topics are analyzed using multimedia technology (computer, projector).

Independent work outside the classroom can take place both in the classrooms of the department and in the computer class, where students can study material on the presentations prepared by the teachers of the department, as well as on computer tests.

Presentations on the topics of the classes can be recorded on a CD or a flash card for self-study of students on a home computer.

Textbooks in electronic form on a number of topics studied are posted on the pages of the department and employees of the Department of Technosphere Safety of the Agrarian and Technological Faculty and on the pages of the Department of Disaster Medicine of the Medical Institute, on the RUDN University Educational Portal, as well as on the local resources of the RUDN University electronic library system.

Extracurricular independent work includes:

study of material from a textbook, teaching aids on paper and electronic media; preparation of an abstract message on a selected topic; preparation for the performance of tests and test tasks.

12. Fund of assessment tools for intermediate certification of students in the discipline " Health and Safety"

Materials for assessing the level of mastering the educational material of the discipline "Life Safety" (assessment materials), including a list of competencies with an indication of the stages of their formation, a description of indicators and criteria for assessing competencies at various stages of their formation, a description of the assessment scales, standard control tasks or other materials , necessary for the assessment of knowledge, abilities, skills and (or) experience of activities that characterize the stages of the formation of competencies in the process of mastering the educational program, methodological materials that determine the procedures for assessing knowledge, skills, skills and (or) experience of activities that characterize the stages of formation of competencies in full and are available for students on the discipline page at TUIS RUDN.

The program was drawn up in accordance with the requirements of the Federal State Educational Standard of Higher Education.

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