

MINISTRY of HEALTH UKRAINE  
KHARKOV NATIONAL MEDICAL UNIVERSITY

Faculty of medicine of accidents and military medicine

Academic year - 2021-2022

**SYLABUS EDUCATIONAL COMPONENT**

«Safety of life.

Normative educational component

Form of education - Full-time education

Branch of knowledge - 22 «Health care»

Specialty - 221 «Dentistry»

Educational and professional program (educational and scientific program) –  
the second (master's) educational and scientific level of higher education.

Course – 1

The syllabus of the discipline was  
considered at a meeting of the  
Department of disaster medicine and  
military medicine

Protocol from  
“31” august 2021 year № 2


Head of department

  
S.G. Demyanik

Approved by the methodical  
commission of KhNMU on the  
problems of professional training of  
treatment and prevention profile

Protocol from  
“31” august 2021 year № 1

Head of commission

  
O.Y. Vovk

MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Disaster Medicine and Military Medicine

The academic year 2021/2022

SYLLABUS OF THE EDUCATIONAL COMPONENT

"Life Safety. Fundamentals of Bioethics and Biosafety »

Normative or selective educational component normative

The form of education full-time

Area of knowledge 22 "Health care"

(code and name of the field of knowledge)

Specialty "221 Dentistry"

(code and name of the specialty)

Specialization (if available) \_\_\_\_\_

Educational-professional program (educational-scientific program) of the second (master's) level of higher education.

Course 1

The syllabus of the discipline was approved at the meeting of the department of disaster medicine and military medicine

Protocol from

“31” August 2021 № 2

Head of the Department

\_\_\_\_\_ Demyanik S.G.

Approved by the methodical commission on problems general and pre-professional training of KhNMU

Protocol from

“31” August 2021 № 1

Head

\_\_\_\_\_ professor Vovk O.Y.

SILLABUS DEVELOPERS:

1. Demyanik Sergey Grigorievich, head of the department, associate professor.
2. Lishchuk Svetlana Anatolyevna, senior teacher of the discipline “Life Safety”.
3. Aksakov Alexander Frantsevich, senior teacher of the discipline “Life Safety”.

**Information about the teachers of the educational component:**

Name	Professional qualification	Contact informaion
Aksakov Alexander Frantsevich	Senior teacher Qualification "Doctor" Specialty "MEDICINE" Specialization "Infectious diseases", "Organization and management of Health Care".	Teacher's office at the department – 4 <sup>th</sup> floor, room 34 E-mail: of.aksakov@knmu.edu.ua Phone: +38 095 883 53 49
Lishchuk Svetlana Anatolyevna	Senior teacher Qualification "Doctor" Specialty "MEDICINE" Specialization "Therapy", "Organization and management of Health Care".	Teacher's office at the department – 4 <sup>th</sup> floor, room 25 E-mail: sa.lishchuk@knmu.edu.ua Phone: +38 050 546 23 33

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**Consultations:** schedule and venue according to the schedule of the department.

**Online consultations:** schedule and venue by prior arrangement with the teacher.

**Location:** Trinklera street, 12; the department of Disaster medicine and military medicine

**Lecture room** – on the 3-rd floor

**Rooms for practical classes** are located on the 4-th floor, rooms 27, 35, 36.

## INTRODUCTION

**Syllabus of the educational discipline “Life Safety. Fundamentals of Bioethics and Biosafety”** is compiled in accordance with the educational and professional program “Dentistry” and the standard of higher education of Ukraine, the second (master's) level, knowledge area 22 “Health care”, specialty “221 Dentistry”.

### **Interdisciplinary connections:**

Studying the discipline “Life safety. Fundamentals of Bioethics and Biosafety” is carried out in the I - II semesters of the I year of study and is based on knowledge of the basic natural science disciplines: Medical Biology, Medical and biological Physics, Bioorganic Chemistry, Human Anatomy, Histology, Latin, History of medicine, Foreign language for professional purposes, Philosophy and integrates with these disciplines. Creates the basis for further study of clinical and hygienic disciplines. Lays the foundations for the formation of knowledge, skills and abilities, which are determined by the final goals of the program, necessary in the next professional activity.

**Prerequisites.** The curriculum provides for in-depth training of students of all specialties (general medicine, pediatrics, dentistry, preventive medicine, medical psychology and pharmacy) to work in the health care system. According to the curriculum, the discipline “Life Safety. Fundamentals of Bioethics and Biosafety” is studied by first-year students and is based on knowledge of the basic natural science disciplines: medical biology, human anatomy, physiology, ecology and is integrated with the corresponding programs. In turn, its main task is to acquire knowledge of the basic valeological principles of a healthy lifestyle and the foundations of the safe activity of a medical worker, creates the basis for the subsequent study of clinical and hygienic disciplines by students, provides for integration with these disciplines and forms skills and knowledge on life safety in the process of further learning.

**Post-requisites.** The main provisions of the academic discipline should be applied in the study of related disciplines throughout the entire period of study, it is also the basis for preparing for training in higher education institutions according to programs of the third scientific and educational level of higher education.

### **Discipline page in the Moodle system**

<http://31.128.79.157:8083/course/view.php?id=764>

## **1. THE PURPOSE AND TASKS OF THE EDUCATIONAL DISCIPLINE**

**1.1 The purpose** of teaching the academic discipline "Life Safety" are:

- formation of knowledge, skills and competence to preserve human health and life in modern living conditions;
- formation of knowledge, skills and competence to protect against the dangers of technogenic, anthropogenic, natural origin and the creation of comfortable conditions for human life;
- formation of knowledge about the legal and organizational aspects of labor protection of medical workers;
- formation of the foundations of a healthy lifestyle and prevention of dangerous situations in the professional activity of a future doctor;

- formation of knowledge about legislative documents that protect the individual, society and humanity as a whole from the undesirable and harmful consequences of the introduction of new biomedical technologies into practice, fostering a deep conviction in the need for strict adherence to ethical and moral norms, rules and principles in their practice;
- developing the ability to assess the latest achievements in biology and medicine in terms of determining the degree of their danger to humans and society today and in the future.

**1.2 The main tasks** of studying the academic discipline "Life Safety" are:

- analysis and assessment of dangerous situations;
- independent decision-making on the development and use of means of protection against hazards in the event of extreme situations;
- using the regulatory framework to protect humans and the environment;
- development of measures and means of protection against exposure to hazardous and harmful factors;
- forecasting and preventing emergencies, and in case of their occurrence, the introduction of decisive measures aimed at their elimination;
- use in its future practice of legal, technical, environmental, preventive and educational measures aimed at ensuring healthy and safe conditions for human existence in modern conditions;
- knowledge of the legal and organizational aspects of labor protection of medical workers.

**1.3 Competences and learning outcomes**, the formation of which is facilitated by the discipline (the relationship with the normative content of training of higher education, formulated in terms of results in the Standard). According to the requirements of the standard, the discipline provides students with the acquisition of competencies:

**1.3.1. The study of the academic discipline ensures that students acquire the following competencies:**

**integral:**

IC - the ability to solve typical and complex specialized problems and solve practical problems in professional activities in the field of health care, or in the learning process, involves research and / or innovation and is characterized by the complexity and uncertainty of conditions and requirements.

**general:**

GC1 - the ability for abstract thinking, analysis and synthesis, the ability to learn and be modernly trained;

GC2 - the ability to apply knowledge in practical situations;

GC3 - Knowledge and understanding of the subject area and understanding of professional activities;

GC4 - the ability to adapt and act in a new situation;

GC5 - the ability to make an informed decision, work in a team; interpersonal skills;

GC6 - the ability to communicate in the state language both orally and in writing; the ability to communicate in a foreign language;

GC7 - skills in the use of information and communication technologies;

GC8 - certainty and persistence in the assigned tasks and responsibilities;

GC9 - the ability to act in a socially responsible and knowing way.

**special (professional, subject) – professional competence (PC):**

PC1 - skills survey

PC2 - the ability to determine the required list of laboratory and instrumental research and evaluation of their results

PC3 - the ability to establish a preliminary and clinical diagnosis diseases

PC4 - the ability to determine the required mode of work and rest, the nature of nutrition in the treatment of diseases

PC5 - the ability to determine the principles and nature of treatment diseases

PC6 - the ability to diagnose emergency conditions

PC7 - the ability to determine tactics and mastery of rendering skills emergency medical care

PC8 - the ability to carry out medical and evacuation measures

PC9 - skills of performing medical procedures

**1.3.2. The study of the academic discipline ensures the acquisition by students of the following program learning outcomes (PLO):**

PLO 1 - obtaining a person of general and special fundamental and professionally oriented knowledge, skills, abilities, competencies necessary to perform typical professional tasks related to her activities in the medical industry in the relevant position;

PLO 2 - knowledge of the psychophysiological characteristics of a person, human health, health maintenance, disease prevention, human treatment, public health

PLO 3 - the ability to apply the acquired knowledge, skills and understanding to solve typical tasks of a doctor's activity, the scope of which is provided for by the list of syndromes and symptoms, diseases, emergency conditions, laboratory and instrumental studies, medical manipulations

PLO 4 - collection of patient information

PLO 5 - assessment of the results of the survey, physical examination, laboratory data and instrumental studies

PLO 6 - establishing a preliminary clinical diagnosis of the disease

PLO 10 - diagnosing emergency conditions, determining the tactics of providing emergency medical care

PLO 17 - be able to maintain medical records, process state, social and medical information.

PLO 18 - the ability to assess the state of human health and provide support for it, taking into account the influence of the environment and other health factors;

PLO 19 - to assess the sanitary and hygienic state of the environment in order to determine the sanitary and hygienic and preventive measures;

PLO 20 - the ability to apply the knowledge gained on the existing health care system to optimize their own professional activities and participate in solving practical problems of the industry;

PLO 21 - the formation of a specialist with appropriate personal qualities, who adheres to the code of ethics of a doctor.

**1.3.3. The study of the academic discipline ensures that students acquire the following social skills (Soft skills):**

resistance to stress, the ability to adapt to the situation, sociability, the ability to work in a team, the desire to learn, critical thinking, the ability to planing.

## 2. DISCIPLINE INFORMATION

Name of indicators	Area of knowledge, direction of training, educational qualification level	Characteristic of the discipline
		<b>full-time education</b>
Number of credits – 1.5	Training direction: 22 Health Care (code and name)	Normative
The total number of hours - 45	Specialty: 221 «Dentistry» (code and name)	<b>Year of the education:</b>
		1st
		<b>Semester</b>
		1st, 2 nd
		<b>Lectures</b>
Hours for full-time study: classroom - 20 (45%) independent student work - 25 (55%)	Education level: Second (Master's level)	10 hours
		<b>Practical classes</b>
		10 hours
		<b>Independent work</b>
		25 hours
		Type of control: Current control Credit

### The content of the discipline

#### Curriculum of the discipline

Topic names	Number of hours			
	Full-time education			
	Total	Including		
		lec	sem	ind
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Topic 1. Theoretical foundations of life safety.	5	2	-	3
Topic 2. Man in the system "Man - external environment". The value of the external environment in the system "Man - external environment".	6	-	2	4
Topic 3. Legal and organizational issues of life safety and labor protection of medical workers. Occupational hazards in the performance of professional duties of medical workers.	5	-	2	3
Topic 4. Ensuring the safety of human life.	7	2	2	3
Topic 5. Natural hazards, the nature of their manifestations and impact on people and objects of the economy. Protection of the population from harmful and dangerous factors.	4	2	-	2



Topic 6. Man-made hazards and consequences of their action. Typology of accidents at potentially hazardous objects. Protection of the population from harmful and dangerous factors.	6	2	2	2
Topic 7. Socio-political dangers, their types and features. Social and psychological risk factors. Algorithm of protective behavioral reactions.	4	2	-	2
Topic 8. Safety of nutrition as a component of safe human life.	4		1	3
Final control	4		1	3
Total hours by discipline	45	10	10	25

### Lecture topics

№	Names of the topics	Number of hours
1.	Theoretical foundations of life safety.	2
2.	Ensuring the safety of human life.	2
3.	Natural hazards, the nature of their manifestations and impact on people and objects of the economy. Protection of the population from harmful and dangerous factors.	2
4.	Man-made hazards and consequences of their action. Typology of accidents at potentially hazardous objects. Protection of the population from harmful and dangerous factors.	2
5.	Socio-political dangers, their types and features. Social and psychological risk factors. Algorithm of protective behavioral reactions.	2
	<b>Total lecture hours</b>	<b>10</b>

### Seminar topics

№	Names of the topics	Number of hours
1.	Man in the system "Man - external environment". The value of the external environment in the system "Man - external environment".	2
2.	Ensuring the safety of human life.	2
3.	Legal and organizational issues of life safety and labor protection of medical workers. Occupational hazards in the performance of professional duties of medical workers.	2
4.	Man-made hazards and consequences of their action. Typology of accidents at potentially hazardous objects. Protection of the population from harmful and dangerous factors.	2
5.	Safety of nutrition as a component of safe human life.	1
6.	Final lesson	1
	<b>Total hours of seminars</b>	<b>10</b>

### The topics of practical classes

Practical classes are not provided by the program.

### The topics of laboratory classes

Laboratory classes are not provided by the program.

### Independent work

№	Name of the topics	Number of hours
1.	Topic 1. Theoretical foundations of life safety.	3
2.	Topic 2. Man in the system "Man - external environment". The value of the external environment in the system "Man - external environment".	4
3.	Topic 3. Legal and organizational issues of life safety and labor protection of medical workers. Occupational hazards in the performance of professional duties of medical workers.	3
4.	Topic 4. Ensuring the safety of human life.	3
5.	Topic 5. Natural hazards, the nature of their manifestations and impact on people and objects of the economy. Protection of the population from harmful and dangerous factors.	2
6.	Topic 6. Man-made hazards and consequences of their action. Typology of accidents at potentially hazardous objects. Protection of the population from harmful and dangerous factors.	2
7.	Topic 7. Socio-political dangers, their types and features. Social and psychological risk factors. Algorithm of protective behavioral reactions.	2
8.	Topic 8. Safety of nutrition as a component of safe human life.	3
9.	Final control	3
	<b>Total hours independent work of student</b>	<b>25</b>

### Individual tasks

The curriculum of the discipline does not provide for individual tasks.

## 3. EVALUATION CRITERIA

### 3.1. Evaluation of the success of education of students is carried out on the basis of the current "Instructions for evaluating the educational activities of students of KhNMU"

The form of control and assessment system is carried out in accordance with the requirements of the discipline program and "Instructions on the system of assessment of students under the European Credit Transfer System".

Methods and means of standardized assessment of current educational activities

To receive credit for the course "Life Safety" it is necessary to attend all practical classes, have the necessary level of knowledge on the topics of classes, the number of points received by the student per course depends on the level of knowledge, the degree of mastery of practical skills.

#### Forms of control:

- Current - current educational activities – marks for topics.
- Final –final test – credit.

**Current control** is carried out during the study of a specific topic to determine the level of formation of a particular skill or ability, the quality of learning a certain portion of educational material by observing the educational and cognitive activities of students in class, oral interviews, written control of knowledge and skills through written works, questions, essays,

solving situational clinical problems), discussions, role-playing games on the topic of the lesson and test control using a set of standardized tasks.

**Criteria for assessing the current educational activities of the student.**

At each practical lesson, the teacher assesses the knowledge of each student on a four-point scale.

**Excellent (“5”)** - The student correctly, clearly, logically and fully answers all the questions of the current topic, knows the material of previous topics (ascending level of knowledge), answers the questions of the lecture course and questions on independent work.

**Good (“4”)** - The student correctly, sometimes with the help of explanatory questions, answers the questions of the current topic, knows the material of previous topics (ascending level of knowledge), answers the questions of the lecture course and questions on independent work.

**Satisfactory (“3”)** - The student incompletely, with the help of explanatory questions, answers the questions of the current topic, questions from the material of previous topics (ascending level of knowledge), inaccurately and incompletely answers the questions of the lecture course and questions from independent work. Cannot build a clear, logical answer on their own.

**Unsatisfactory (“2”)** -The student does not know the material of the current topic. Or answers the questions of the current topic insufficiently, incompletely, cannot build a logical answer, does not answer explanatory questions, does not understand the content of the material, does not know questions from the material of previous topics (ascending level of knowledge), does not answer lecture course questions and questions independent work.

**Final control** involves summarizing the results of current control.

The form of final control of knowledge is a test. The final control of mastering the discipline is carried out upon its completion at the final lesson. The final score for current activities is defined as the sum of points or the arithmetic mean of traditional estimates obtained for current activities. The traditional arithmetic mean score is converted into points according to the conversion scale and the final score according to the traditional scale.

The recalculation of the average assessment of current activities into a multi-point scale is carried out in accordance with the "Instructions for the assessment of educational activities under the European credit transfer system of organizing the educational process."

**Recalculation of the average scores for the current activity in the 200-points scale (for subjects completed offsetting)**

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.22-4,23	169	3.45-3,46	138
4.97-4,99	199	4.19-4,21	168	3.42-3,44	137
4.95-4,96	198	4.17-4,18	167	3.4-3,41	136
4.92-4,94	197	4.14-4,16	166	3.37-3,39	135
4.9-4,91	196	4.12-4,13	165	3.35-3,36	134
4.87-4,89	195	4.09-4,11	164	3.32-3,34	133
4.85-4,86	194	4.07-4,08	163	3.3-3,31	132

4.82-4,84	193	4.04-4,06	162	3.27-3,29	131
4.8-4,81	192	4.02-4,03	161	3.25-3,26	130
4.77-4,79	191	3.99-4,01	160	3.22-3,24	129
4.75-4,76	190	3.97-3,98	159	3.2-3,21	128
4.72-4,74	189	3.94-3,96	158	3.17-3,19	127
4.7-4,71	188	3.92-3,93	157	3.15-3,16	126
4.67-4,69	187	3.89-3,91	156	3.12-3,14	125
4.65-4,66	186	3.87-3,88	155	3.1-3,11	124
4.62-4,64	185	3.84-3,86	154	3.07-3,09	123
4.6-4,61	184	3.82-3,83	153	3.05-3,06	122
4.57-4,59	183	3.79-3,81	152	3.02-3,04	121
4.54-4,56	182	3.77-3,78	151	3-3,01	120
4.52-4,53	181	3.74-3,76	150	<b>less 3</b>	<b>not enough</b>
4.5-4,51	180	3.72-3,73	149		
4.47-4,49	179	3.7-3,71	148		
4.45-4,46	178	3.67-3,69	147		
4.42-4,44	177	3.65-3,66	146		
4.4-4,41	176	3.62-3,64	145		
4.37-4,39	175	3.6-3,61	144		
4.35-4,36	174	3.57-3,59	143		
4.32-4,34	173	3.55-3,56	142		
4.3-4,31	172	3.52-3,54	141		
4,27-4,29	171	3.5-3,51	140		
4.24-4,26	170	3.47-3,49	139		

**Correspondence of discipline assessment in points  
assessment in ECTS and traditional assessment**

Assessment of discipline in points	Assessment on the ECTS scale	Traditional assessment from the discipline
180–200	A	5
160–179	B	4
150–159	C	4
130–149	D	3
120–129	E	3
Less 120	F, FX	2

### **3.2. The Questions to the Final Control:**

1. "Life safety", subject, tasks, main tasks.
2. Axiom of potential danger.
3. Classification of hazards. Risk concept. Risk management.
4. Principles for determining the acceptable level of negative factors in relation to human health.
5. Principles and methods of ensuring the safety of human life.
6. The value of the external environment in the system "Man - External environment".
7. Man as a bioenergy system. Unity of biological systems of the human body.
8. Factors that ensure human health.
9. Protective functions of the human body.
10. The role of receptors and analyzers of the human body in the assessment of factors of the system "man - habitat".
11. Weber-Fechner law.
12. Psychological factors that determine a person's personal safety.
13. Rational modes of work and rest.
14. The external environment and the environment of human life. Classification and characteristics of the human environment.
15. Classification and characterization of negative factors of the human environment.
16. Physical negative factors.
17. Chemical negative factors.
18. Biological anthropogenic negative factors.
19. Psychophysiological negative factors.
20. Social dangers.
21. Methods and means of human protection.
22. Features of the state of ecological safety of Ukraine. Comprehensive risk assessment of the impact of anthropogenic factors on human safety and health.
23. Human health as a medical-biological and social category. Spiritual, mental, physical, social aspects of human health.
24. Health and pathology.
25. Indicators of individual human health. Factors that ensure the stability of health. Risk factors and risk groups.
26. The concept of lifestyle, its features in modern conditions.
27. Wellness traditional and non-traditional systems, methods of recovery. Ways to harden the body.
28. The mechanism of harmful effects on the human body of alcohol, smoking and drugs. Threat to personal and public life in their use.
29. Methods to reduce bad habits.

30. Legislative and regulatory framework of Ukraine for life safety and labor protection. The main provisions of the Law of Ukraine "On labor protection".
31. Normative acts on life safety and labor protection. Responsibility for violation of legislation on life safety and labor protection.
32. State management of labor protection and organization of labor protection at work. Bodies of state management of labor protection, their competence and powers.
33. Labor protection service of the system of the Ministry of Health of Ukraine.
34. Labor protection service of the enterprise. Occupational safety training. Occupational safety briefings. Internship (duplication) and admission of employees to work. State supervision and public control over labor protection.
35. Bodies of state supervision over labor protection are their main powers and rights. Public control over observance of the legislation on labor protection.
36. Investigation and accounting of accidents, occupational diseases and accidents at work.
37. List of occupational hazards in the performance of professional duties of medical and pharmaceutical workers. Features of occupational morbidity of medical and pharmaceutical workers.
38. Rules of industrial sanitation, anti-epidemic regime and personal hygiene of employees of disinfection institutions and units.
39. Safety of personnel of offices and departments of radiological diagnostics and therapy.
40. Features of influence of modern laser devices.
41. Safety rules in hyperbaric oxygenation departments, clinical diagnostic laboratories, physiotherapy departments, when working with sterilization units.
42. Man-made hazards and their impact factors.
43. Industrial accidents, catastrophes and their consequences. Levels of industrial accidents depending on their scale.
44. Dangerous events in transport and accidents on transport communications. Requirements for transportation of hazardous substances.
45. Dangerous to humans fire factors.
46. Explosion. Factors of man-made explosions that lead to human injuries, destruction of buildings, structures, technical equipment and environmental pollution.
47. Legislation on fire safety. Fundamentals of fire safety. Liability for violation of fire safety requirements.
48. Classification of radiation accidents.
49. The mechanism of action of ionizing radiation on the human body.
50. Standardization of ionizing radiation. Intervention levels in the event of a radiation accident.
51. The Chernobyl disaster: social and medical consequences. Zones of radioactively contaminated territories as a result of the Chernobyl accident.
52. Classification of hazardous chemicals by degree of toxicity.

53. Features of pollution of the area, water, food in case of accidents with the release of hazardous chemicals.
54. Typology of accidents at chemically dangerous objects.
55. Protection of the population from harmful and dangerous factors of man-caused dangers.
56. The impact of nutrition on human life.
57. Requirements for food quality and safety.
58. Food additives as possible contaminants.
59. Consequences of food contamination by pesticides.
60. Growth stimulants and other chemicals used in agriculture.
61. Genetically modified products and their danger to human health.
62. Radionuclides in food. Nutrition in conditions of radiation pollution.
63. Toxic substances in food: permissible background residues, the maximum permissible level of residues in food.
64. Methods for reducing the amount of contaminants in food.

### **3.3 Control questions:**

1. "Life safety", subject, purposes, main tasks.
2. Axiom of potential danger. Classification of hazards.
3. The concept of risk. Risk management. Principles for determining the acceptable level of negative factors related to human health.
4. Principles and methods of ensuring the safety of human life.
5. Basics of life safety management. System analysis of life safety.
6. The value of the external environment in the system "Man - External environment".
7. Man as a bioenergy system. Unity of biological systems of the human body. Factors that ensure human health.
8. Protective functions of the human body.
9. The role of receptors and analyzers of the human body in the assessment of factors of the system "Man - External environment". Weber-Fechner law.
10. Psychological factors that determine a person's personal safety. Psychophysiological state of the organism.
11. Dependence of the body on external stimuli. Rational modes of work and rest.
12. Classification and characterization of negative factors of the human environment. Physical negative factors. Chemical negative factors. Biological anthropogenic negative factors. Psychophysiological negative factors. Social dangers.
13. Methods and means of human protection. Comprehensive risk assessment of the impact of anthropogenic factors on human safety and health.
14. Human health as a medical-biological and social category. Spiritual, mental, physical, social aspects of human health. Health and pathology.

15. Factors that ensure the stability of health. Risk factors and risk groups.
16. The concept of lifestyle, its features in modern conditions.
17. Wellness traditional and non-traditional systems, methods of recovery. Ways to harden the body.
18. The mechanism of harmful effects on the human body of alcohol, smoking and drugs. Threat to personal and public life in their use. Methods to reduce of the bad habits.
19. The impact of nutrition on human life.
20. Requirements for food quality and safety.
21. Food additives as possible contaminants.
22. Consequences of food contamination by pesticides.
23. Growth stimulants and other chemicals used in agriculture.
24. Genetically modified products and their danger to human health.
25. Radionuclides in food. Nutrition in conditions of radiation pollution.
26. Toxic substances in food: permissible background residues, the maximum permissible level of residues in food. Methods for reducing the amount of pollutants in food.
27. Characteristics of dangerous geological processes and phenomena, the striking factors that form them, the nature of their manifestations and actions.
28. Characteristics of dangerous meteorological processes and phenomena, the striking factors that form them, the nature of their manifestations and actions.
29. Dangerous hydrological processes and phenomena, the striking factors that form them, the nature of their manifestations and consequences.
30. Fires in natural ecosystems affecting the factors of natural fires, the nature of their manifestations and consequences.
31. Biological hazards. Impressive factors of biological action. Characteristics of dangerous pathogenic microorganisms. Pandemics, epidemics, mass poisonings.
32. Man-made hazards and their impact factors. Industrial accidents, catastrophes and their consequences.
33. Levels of industrial accidents depending on their scale. Dangerous events on transport and accidents on transport communications.
34. Requirements for transportation of hazardous substances.
35. Dangerous to humans fire factors. Explosion. Factors of man-made explosions that lead to human injuries, destruction of buildings, structures, technical equipment and environmental pollution.
36. Legislation on fire safety. Fundamentals of fire safety. Liability for violation of fire safety requirements.
37. Classification of radiation accidents.
38. The mechanism of action of ionizing radiation on the human body. Standardization of ionizing radiation. Intervention levels in the event of a radiation accident.



39. The Chernobyl disaster: social and medical consequences. Zones of radioactively contaminated territories as a result of the Chernobyl accident.
40. Classification of hazardous chemicals by degree of toxicity.
41. Features of pollution of the area, water, food in case of accidents with release of dangerous chemicals.
42. Typology of accidents at chemically hazardous facilities. Protection of the population from harmful and dangerous factors of man-caused dangers.
43. Global problems of mankind: global biosphere crisis, environmental crisis, resource crisis, peaceful coexistence, cessation of the arms race and prevention of nuclear war, environmental protection, fuel and energy, raw materials, food, demographic, information, elimination of dangerous diseases.
44. Socio-political conflicts with the use of conventional weapons and means of mass destruction.
45. Types of terrorism, its primary, secondary and cascading impact factors.
46. Armed attacks, seizure and maintenance of objects of state importance; installation of an explosive device in a crowded place, institution (organization, enterprise), theft of weapons and dangerous substances.
47. Modern information technologies and safety of human life. Features of the impact of the information factor on human health and public safety.
48. Social factors that affect human life and health. Corruption and criminalization of society. Manipulation of consciousness. The gap in the level of livelihood between different segments of the population.
49. Bad habits, social diseases and their prevention.
50. The growth of crime as a risk factor. Types of criminal encroachments on a person.
51. The concept and types of crowds. Human behavior in the crowd.
52. Factors that increase an individual's likelihood of being exposed to danger.
53. Psychological reliability of a person and his role in ensuring security.
54. Protective properties of the human body. Types of human behavior and mental activity: mental processes, states, properties.
55. Labor protection service of the system of the Ministry of Health of Ukraine.
56. List of occupational hazards in the performance of professional duties of medical and pharmaceutical workers. Features of occupational morbidity of medical and pharmaceutical workers.
57. Rules of industrial sanitation, anti-epidemic regime and personal hygiene of employees of disinfection institutions and units.
58. Safety of personnel of offices and departments of radiological diagnostics and therapy. Features of influence of modern laser devices.
59. Occupational safety in pathological, histological, forensic institutions.
60. Safety rules in hyperbaric oxygenation departments, clinical diagnostic laboratories, physiotherapy departments, when working with sterilization units.

**3.4. Individual tasks** (the list approved at the meeting of the department with the determination of the number of points for their performance, which can be added as incentives):

The program does not provide individual tasks.

### **3.5. Rules for appealing the assessment**

The appeal is appealed in accordance with the provision "On the appeal of the results of the final control of students of the Kharkiv National Medical University", the order of 09/30/2020. №. 252.

[http://www.knmu.kharkov.ua/index.php?option=com\\_content&view=article&id=1226%3A2013-03-25-12-07-55&catid=4%3A2011-05-04-07-20-12&Itemid=19&lang=uk](http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=1226%3A2013-03-25-12-07-55&catid=4%3A2011-05-04-07-20-12&Itemid=19&lang=uk)

## **4. DISCIPLINE POLICY AND VALUES**

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes according to the subject; not to be late and not to miss classes; perform all necessary tasks and work in each lesson; be able to work with a partner or in a group; contact the curators of the course on various issues on the subject of classes and receive it when you need it.

Students can discuss different tasks, but their performance is strictly individual. It is not allowed to write off, use various software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the educational process. Students are not allowed to be late for practical classes.

Students with special needs can meet with the teacher or warn him before the start of classes, at the request of the student it can be done by the head of the group. If you have any questions, please contact the teacher.

Students are encouraged to participate in research and conferences on this topic.

All students of KhNMU are protected by the Regulations on Prevention, Prevention and Settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University, designed to define an effective mechanism for resolving conflict situations related to discrimination and sexual harassment. This Regulation is developed on the basis of the following normative legal acts of Ukraine: the Constitution of Ukraine; Law of Ukraine "On Education"; Law of Ukraine "On Higher Education"; Law of Ukraine "On Principles of Prevention and Counteraction of Discrimination in Ukraine"; Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men"; Convention for the Protection of Human Rights and Fundamental Freedoms; Convention for the Suppression of Discrimination in Education; Convention on the Elimination of All Forms of Discrimination against Women; General Recommendation № 25 to Article 4, paragraph 1, of the Convention on the Elimination of All Forms of Discrimination against Women; General Comment № 16 (2005) "Equal rights for men and women to enjoy economic, social and cultural rights" (Article 3 of the International Covenant on Economic, Social and Cultural Rights; UN Committee on Economic, Social and Cultural Rights); in the spirit of international mutual understanding, cooperation and peace and education in the spirit of respect for human rights and fundamental freedoms (UNESCO), the Concept of the State Social Program for Equal Rights and Opportunities for Women and Men until 2021. Kharkiv National Medical University provides education and work that is free from

discrimination, sexual harassment, intimidation or exploitation. The University recognizes the importance of confidentiality. All persons responsible for the implementation of this policy (staff of deans, faculties, institutes and the Center for Gender Education, members of the student government and ethics committee, vice-rector for research and teaching) are confidential about those who report or accuse of discrimination. or sexual harassment (except where the law requires disclosure and / or when disclosure by the University is necessary to protect the safety of others).

KhNMU creates a space of equal opportunities free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities granted to students or staff of the University apply to all without exception, provided they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KhNMU are confirmed by the Code of Corporate Ethics and the Charter of KhNMU.

### **Behavior in the audience**

It is important for students to follow the rules of good behavior at the university. These rules are common to all, they also apply to all faculty and staff, and are not fundamentally different from the generally accepted norms.

1. The student is obliged to come to practical classes or lectures at the time set by the educational part of the university.
2. During the study period, the student must be in the classroom or lecture hall and leave these rooms only with the permission of the teacher or lecturer.
3. The student is obliged to take care of material values, visual aids and immediately inform the teacher about their damage.
4. At the beginning of the practical lesson, the monitor of the group appoints a duty who monitors compliance with the above rules, and at the end of the lesson brings order to the classroom.

During classes it is allowed:

- leave the classroom for a short time if necessary and with the permission of the teacher;
- take pictures of presentation slides;
- actively participate in the lesson.

It is strictly forbidden in the classroom:

- be in outerwear;
- attendance without a medical coat;
- eat food (except for persons whose special health condition requires otherwise - in this case, medical confirmation is required);
- smoke, use alcoholic and even low-alcohol drinks or drugs;
- use foul language or words that offend the honor and dignity of colleagues and teachers;
- play gambling;
- harm the material and technical base of the university (damage to inventory, equipment; furniture, walls, floors, bedding of premises and territories)
- make noise, shout or listen to loud music in classrooms and even corridors during class.

### **Occupational Safety and Health**

The first lesson of the course will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest

evacuation exit is, where the fire extinguisher is, how to use it, and so on.

**Procedure for informing about changes in the syllabus:** the necessary changes in the syllabus are approved by the methodical commission of KhNMU on the problems of natural science training and are published on the site of KhNMU, the site of the department of human anatomy of KhNMU.

## 5. PLAGIARISM AND ACADEMIC INTEGRITY

The Department of Disaster medicine and military medicine maintains zero tolerance for plagiarism. Male and female students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

## 6. RECOMMENDED BOOKS

### Basic:

1. Life safety, basics of labor protection: textbook. way. / О.П. Yavorovsky, VM Shevtsova, VI Zenkin and others; for general ed. О.П. Yavorovsky. - К .: ВСВ “Медицина”, 2015. - 288 с.
2. Hygiene and labor protection of medical workers. Textbook / Ed. V.F. Москаленка, О.П. Yavorovsky. - К .: “Медицина”, 2009. - С.6-56.
3. Safety of life, basics of labor protection: Training manual / emphasis: ОП Yavorovsky, VMShevtsova, GAShkurko, etc. - Cherkasy: publisher Chabanenko YA, 2012. - 232 s.
4. Life safety: for students of higher educational institutions of Ukraine of I-IV levels of accreditation / Е.Р. Желібо, Н.М. Заверуха, В.В. Reigning; For order. Е.Р. Zhelibо and VMPichi. - К .: “Каравела”; Lviv: “New World-2000”, 2001. - 320 p.

### Auxiliary:

1. Life safety: a textbook. / [O.I. Zaporozhets, BD Khalmuradov, VI Primenko et al.] - К .: "Center for Educational Literature", 2013. - 448 p.
2. The Constitution of Ukraine. The Basic Law of June 28, 1996.
3. Law of Ukraine “On labor protection” of October 14, 1992.
4. Law of Ukraine “On Ensuring Sanitary and Epidemic Welfare of the Population” № 4004-XII of 24.02.94.
5. Law of Ukraine “On Collective Bargaining Agreements” № 1874 of 24.12.95.
6. Law of Ukraine “On insurance tariffs for compulsory state social insurance against accidents at work and occupational diseases that caused disability”, 1423 of 13.09.2000.
7. Law of Ukraine “On Administrative Violations” № 8074-10 of 07.12.84.
8. Fundamentals of the legislation of Ukraine on health care № 2802-XII dated 19.11.92.
9. Code of Labor Laws of Ukraine № 322-VIII of 10.12.71.
10. Law of Ukraine “On protection of a person from the influence of ionizing radiation” № 15/98-BP of 14.01.1998.
11. Code of Civil Protection of Ukraine № 5403-VI dated 02.10.2012.
12. Decree of the President of Ukraine № 643/2001 “National Program for Combating Tuberculosis”.
13. Resolution of the Cabinet of Ministers of Ukraine “Some issues of investigation and accounting of accidents, occupational diseases and accidents at work” № 1232 of 30.12.11.

14. DSTU 2272: 2006 "Fire safety. Terms and definitions of basic concepts. - K. : Держспоживстандарт, 2007. - 28 с.
15. Order of the State Labor Inspectorate of Ukraine "Standard Regulations on the Procedure for Conducting Training and Testing of Knowledge on Occupational Safety" № 15 of January 26, 2005.
16. Order of the State Labor Inspectorate of Ukraine "List of works with increased danger" № 15 dated January 26, 2005.
17. Order of the State Labor Inspectorate of Ukraine "Standard Regulations on the Labor Protection Service" № 255 of 15.11.04.
18. Order of the Ministry of Education and Science of Ukraine "Regulations on the organization of work on labor protection of participants in the educational process in educational institutions" № 563 dated 01.08.01.
19. Order of the Ministry of Labor and Social Policy of Ukraine "On approval of the form of employment contract between employees and individuals and the procedure for registration of employment contracts between employees and individuals" № 260 from 08.06.01.
20. Order of the Ministry of Health of Ukraine "Regulations on the labor protection service of the system of the Ministry of Health of Ukraine" № 268 of 30.09.1994.
21. Order of the Ministry of Health of Ukraine "On the introduction of operational control over the state of labor protection in institutions, establishments and enterprises of the Ministry of Health of Ukraine" № 444 from 01.11.2001.
22. Resolution of the Cabinet of Ministers of Ukraine "On approval of the Procedure for classification of emergencies by their levels" № 368 of 24.03.04
23. Radiation safety standards of Ukraine (NRBU-97). - Kyiv: Department of Printing of the Ukrainian Center for State Sanitary Supervision of the Ministry of Health of Ukraine, 1998. - 125 p.
24. Domaretsky, VA Ecology of food products [Text]: production and practical edition / VA Domaretsky, TP Zlatev. - K. : Урожай, 1993. - 190 с.
25. Smolyar VI Nutrition in terms of radionuclide contamination. - Kyiv: Health: Ukr. red cross, 1991. - 32 p.
26. Khoruzhaya TA Environmental hazard assessment. / TA Khoruzhaya - M. : "Book Service", 2002. - 208 p.
27. Safety of life: Textbook / VG Tsapko, DI Mazorenko, Yu.S. Skoblo, L.M. Tishchenko; for order. V.G. A stain. - K. : ЗНАННЯ, 2008. - 397 с.
28. Safety of life: Textbook / VV Berezutsky, L.A. Vaskovets, NP Vershinina and others; For order. V.V. Berezutsky. - X. : Fact, 2005. - 384 p.
29. Kornienko OV Life safety and maintenance of psychosomatic health of youth: Monograph.-K. : "University of Kiev", 2004.-264 p.
30. Dementiy LV, Yusina AL Ensuring the safety of life: Textbook. - Kramatorsk: DGMA, 2008. - 300 p.
31. Apanasenko GL Valeology as a science (Lecture for cadet doctors). - K., 2001. - 23 p.
32. Kazin EM, Blinova MG, Litvinova MA Fundamentals of individual human health: Introduction to general and applied valeology: Textbook. allowance. - M. : VLADOS, 2000. - 192 p.
33. Pistun IP, Kelman II, Velkovsky EK Life safety: A textbook. - Lviv: Afisha, 2007. - 336 p.

## 7. INFORMATION RESOURCES

### Link to the discipline page in MOODLE

<http://distance.knmu.edu.ua/course/view.php?id=764>

1. Official Internet Representation of the President of Ukraine <http://www.president.gov.ua/>.
2. The Verkhovna Rada of Ukraine <http://www.rada.gov.ua/>.
3. The Cabinet of Ministers of Ukraine <http://www.kmu.gov.ua/>.
4. Ministry of Education and Science of Ukraine <http://www.mon.gov.ua/>.
5. Ministry of Ecology and Natural Resources of Ukraine <http://www.menr.gov.ua/>.
6. State Service of Ukraine for Emergencies <http://www.dsns.gov.ua/>.
7. National Security and Defense Council of Ukraine <http://www.rnbo.gov.ua/>.
8. Permanent Mission of Ukraine to the United Nations <http://ukraineun.org/>.
9. North Atlantic Treaty Organization (NATO) <http://www.nato.int/>.
10. World Health Organization <http://www.who.int/en/>.
11. <http://www.bioethics.net>
12. <http://www.bioethics.as.nyu.edu>
13. <http://www.bioethics.ca>
14. <http://www.bioethics.ru>

## 8. OTHER

### Useful links:

1. Regulations on prevention, prevention and settlement of cases related to sexual harassment and discrimination in KhNMU

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog-sex.doc](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc)

2. Regulations on academic integrity and ethics of academic relations in Kharkiv National Medical University

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_ad\\_etyka\\_text.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf)

3. The procedure for conducting classes on in-depth study by students of Kharkiv National Medical University of certain disciplines beyond the scope of the curriculum

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/nak-poriad-pogl-vyv-dysc.docx](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/nak-poriad-pogl-vyv-dysc.docx)

4. Regulations on the Commission on Academic Integrity, Ethics and Conflict Management of KhNMU [http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_komis\\_ad\\_text.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_komis_ad_text.pdf)

5. Regulations on recognition of results of non-formal education in Kharkiv National Medical University [http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/polog\\_neform\\_osv.pdf](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_neform_osv.pdf)

### INCLUSIVE EDUCATION:

[http://www.knmu.kharkov.ua/index.php?option=com\\_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=uk](http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=uk)

### 7. ACADEMIC INTEGRITY:

[http://www.knmu.kharkov.ua/index.php?option=com\\_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk](http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk)

[http://files.knmu.edu.ua:8181/upload/redakt/doc\\_uchproc/kodex\\_AD.docx](http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx)

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