

Ministry of Education and Science of the Kyrgyz Republic

Ministry of Health of the Kyrgyz Republic

Educational and Methodical Association for Higher Medical and  
Pharmaceutical Education under the Ministry of Education and Science of the  
Kyrgyz Republic

## **CATALOGUE OF COMPETENCIES**

Of Higher Educational Institution in the Specialty 560003

«Medical and preventive care»

UNDERGRADUATE LEVEL

Duration of training: 6 years

Bishkek-2018

The catalog of competencies is developed using materials of the State Educational Standard in the specialty 560003 «Medical and preventive care» (undergraduate level) was compiled by: Burabayeva A. A., Toigonbaeva V. S., Atambayeva R. M., Esenamanova M. K., Sydykov Zh.S., Kochkorova F. A., Erbaev A. T., Tsivinskaya T. A., Bapalieva G. O., Somkulova E. J.

**The catalog is reviewed:** Aidarov Z. A., Doctor of Medical Sciences, Professor, Head of the Department of Public Health and Public Health; Buyuklyanov A. I., Candidate of Medical Sciences, Chief physician of the Central Department of Public Health and Public Health in Bishkek.

It is reviewed and recommended for approval at the meeting of the UMPC of the Faculty of "Medical and Preventive Care" of the I. K. Akhunbayev KSMA, Protocol No. 4 of November 15, 2018.

It is reviewed and approved at the meeting of the GUMC of the I. K. Akhunbayev KSMA, Protocol No. 4 of December 18, 2018.

It is reviewed and approved at the meeting of the Academic Council of the I. K. Akhunbayev KSMA, dated December 21, 2018.

## **Content**

EXPLANATORY NOTE

CHAPTER 1. COMPETENCIES OF AN MPC DOCTOR

CHAPTER 2. DISCIPLINARY COMPETENCIES IN HYGIENE AND  
EPIDEMIOLOGY

2.1. General hygiene

2.2. Occupational health

2.3. Communal hygiene

2.4. Food hygiene

2.5. Hygiene of children and adolescents

2.6. Radiation hygiene

2.7. Military hygiene

2.8. General and clinical epidemiology

2.9. Military epidemiology

CHAPTER 3. SYMPTOMS OF DISEASES

CHAPTER 4. DISCIPLINARY COMPETENCIES FOR DISEASES

3.1. Internal diseases

3.2. Children's diseases

3.3. Children's infectious diseases

3.4. Surgical diseases

3.5. Diseases of the female genital organs and breast

3.6. Infectious diseases

3.7. Tuberculosis

3.8. Diseases of the nervous system

3.9. Mental illnesses

- 3.10. Skin and venereal diseases
- 3.11. Diseases of the ear, throat, and nose
- 3.12. Eye diseases
- 3.13. Dental diseases
- 3.14. Oncological diseases
- 3.15. Emergency conditions
- 3.16. Pharmacotherapy
- 3.17. Medical radiology
- 3.18. Public health and healthcare
- 3.19. Forensic medicine
- 3.20. Medical rehabilitation

## CHAPTER 5. MEDICAL SKILLS AND MANIPULATIONS

## **Explanatory note**

Undergraduate level in the specialty "Medical and preventive affairs" provides for professional training of a specialist with deep theoretical and practical competencies in hygiene disciplines and epidemiology, who knows the primary signs (symptoms), etiopathogenesis of various human diseases, as well as related subjects necessary for their professional activity, and is ready for subsequent postgraduate education, which gives the legal right to conduct primary and secondary prevention of infectious and non-infectious diseases.

The catalog is compiled taking into account the above positions and meets the requirements of the State Educational Standard of Higher Professional Education.

According to the SES, a graduate must master the following types of activities::

- a preventive service;
- instrumental measurements;
- hygienic and epidemiological diagnostics;
- laboratory tests;
- analytical information;
- medical service;
- psychological and pedagogical support;
- organizational and managerial support;
- a research organization.

This catalog defines the competencies that correspond to the listed types of activities.

Based on this competence catalog:

*defined by:*

- purpose and content of postgraduate training for an MPC doctor;
- level of knowledge and skills of the MPC doctor;

*being developed:*

- MPC doctor training programs;
- criteria for evaluating the quality of student training at various stages of training;
- standard requirements for certification of an MPC doctor.

*being organized:*

- learning process;
- professional orientation of applicants to medical universities.

*held:*

- certification of graduates.

For practical convenience, the competencies are distributed in the catalog as follows::

Chapter 1. Competencies of an MPC doctor.

Chapter 2. Disciplinary competencies in hygiene and epidemiology.

Chapter 3. Symptoms of diseases.

Chapter 4. Disciplinary competencies for diseases.

Chapter 5. Medical skills and manipulations.

In chapter 1 lists General Tasks (GC), social and personal (SLC), instrumental (IC) and professional (PC) competencies that a graduate must master

(in accordance with the State Educational Standard of Higher Professional Education in the specialty 560003 “Medical and preventive care”).

In Chapter 2 lists knowledge and skills in hygiene and epidemiology.

The Theoretical foundations section lists the knowledge that a graduate should have.

The following gradations are used to indicate the level of knowledge:

Level	Level 1	Level 2
Theoretical foundations	<p>Level of general knowledge of graduates:</p> <ul style="list-style-type: none"> <li>- can describe in general terms this sanitary and hygienic or epidemiological situation;</li> <li>- knows the relevance and significance of each factor in each sanitary and epidemiological situation;</li> </ul>	<p>Level of practical application of theoretical knowledge:</p> <ul style="list-style-type: none"> <li>- can use their knowledge when analyzing the obtained studies for sanitary-hygienic and epidemiological conclusions.</li> </ul>

To describe the degree of proficiency by the skills that a graduate should possess, the following gradation of levels are used:

Level	Level 1	Level 2
Research of supervised facilities and foci of infectious diseases.	<p>The graduate must have some practical experience:</p> <ul style="list-style-type: none"> <li>- can explain the essence of the study;</li> <li>- knows and understands what this research is being conducted for;</li> <li>- knows the significance of the study in a specific sanitary and epidemiological situation;</li> <li>- saw and participated in</li> </ul>	<p>The graduate must have the skills of sanitary-hygienic and epidemiological research:</p> <ul style="list-style-type: none"> <li>- can explain the research principle;</li> <li>- knows the technique of execution and research;</li> <li>- has sufficient experience to perform research independently;</li> </ul>

	research (in the classroom, in practice, etc.).	- can interpret and analyze the received data.
--	---	--

To indicate the competencies that a graduate should possess, the following designations are used to justify the conclusion:

On hygiene subjects	
But	The conclusion is given on the basis of a sanitary examination of the supervised object interpreted by the doctor himself.
In	The conclusion is given on the basis of sanitary, instrumental and laboratory studies of supervised objects, analysis and comparison with Technical Regulations and other regulatory documents.
With	Conducting an expert review of the project and giving an opinion.
D	The doctor knows and is able to carry out health-improving measures of the human environment.

On epidemiology	
But	Giving an opinion on the epidemiological situation based on the analysis of morbidity.
In	Filling out the card (conclusion) epidemiological survey of foci of various infectious and parasitic diseases.
With	Assessment of an unfavorable epidemiological situation with the issuance of a conclusion on its elimination.
D	The doctor knows and is able to eliminate risk factors for the occurrence of epidemic foci of infectious and parasitic diseases.

Professional disciplines are presented as follows:

1. General hygiene;
2. Occupational health and safety;
3. Municipal hygiene;
4. Food hygiene;
5. Hygiene of children and adolescents;
6. Radiation hygiene;

7. Military hygiene;
8. General and clinical epidemiology;
9. Military epidemiology.

Diseases/clinical conditions are presented in groups by discipline:

- Internal diseases;
- Children's diseases, children's infectious diseases;
- Surgical diseases, children's surgical diseases;
- Diseases of the female genital organs and breast;
- Infectious diseases;
- Tuberculosis;
- Diseases of the nervous system;
- Mental illnesses;
- Skin and venereal diseases;
- Ear, throat and nose diseases;
- Eye diseases;
- Dentistry;
- Oncology;
- Emergency conditions;
- Pharmacotherapy;
- Medical rehabilitation services;
- Forensic medicine;
- Occupational diseases;
- Traumatology and Orthopedics;
- Public health and healthcare;
- Biostatistics;
- Medical Radiology;
- Health insurance;

- Bioethics;
- Microbiology.

For the block diseases / clinical conditions, the following gradation is used to indicate the level of knowledge:

	Level 1	Level 2
Clinical conditions	<p>The graduate must be well-versed in this clinical situation:</p> <ul style="list-style-type: none"> <li>- make a preliminary diagnosis</li> <li>- give a general definition without going into details</li> <li>- send it to a specialist for consultation.</li> </ul>	<p>The graduate must solve a clinical situation:</p> <ul style="list-style-type: none"> <li>- it can be structured to collect an anamnesis</li> <li>- conduct an active search for typical complaints and symptoms</li> <li>- can make a diagnosis for this condition</li> <li>- can continue appropriate diagnostic and therapeutic measures, taking into account epidemiological data and the results of laboratory research methods.</li> <li>- can properly explain the essence of the necessary diagnostic treatment and rehabilitation measures.</li> </ul>

The following letter designations are used to indicate the competencies in diseases that an IVD graduate should master:

<b>A</b>	The diagnosis of the disease is made directly by the doctor on the basis of physical examination data, simple examination methods prescribed and interpreted by the doctor himself.
<b>B</b>	Treatment is carried out personally by the doctor, including the usual treatment regimens for uncomplicated cases.

<b>C</b>	The doctor is able to assess the patient's condition and start providing emergency measures. The doctor is not required to make a clinical diagnosis; his urgent measures may be based on a reasonable preliminary diagnosis.
<b>D</b>	The doctor knows and is able to carry out preventive measures.

All medical manipulations are conditionally grouped into the following groups:

- Interviewing or collecting a patient's medical history;
- Physical examination;
- General manipulations;
- Information management;
- Manipulations for emergency care;

Similar documents have been developed as a catalogue of IPM competencies.

The developers understand that the catalog is not without some drawbacks and controversial issues, as well as the fact that medical science, especially preventive medicine, does not stand still and is intensively developing, so it is possible that this catalog can be reworked and updated more than once.

## **CHAPTER 1. LIST OF COMPETENCIES OF AN MPC DOCTOR**

<b>General competencies (GC)</b>	
<b>GC-1</b>	he is able to analyze socially significant problems and processes, use in practice the methods of the humanities, natural sciences, biomedical and clinical sciences in various types of professional and social activities;
<b>GC-2</b>	capable of analyzing worldview, socially and personally significant philosophical problems and categories;
<b>GC-3</b>	able to analyze significant political events and trends, to participate responsibly in political life, to master the basic concepts and laws of the world historical process, to respect and respect the historical heritage and traditions, to evaluate state policy, to master the meaning of historical and medical terminology;
<b>GC-4</b>	able to analyze economic problems and social processes, use the methodology for calculating indicators of economic efficiency in the

	healthcare system;
<b>GC-5</b>	He is capable of logical and reasoned analysis, public speech, conducting discussions and polemics, editing texts of professional content, and carrying out educational and pedagogical activities.;
<b>GC-6</b>	able and ready to learn one of the foreign languages at the level of everyday communication, to written and oral communication in the state and official languages;
<b>GC-7</b>	able and willing to use management methods, organize the work of performers, find and make responsible management decisions in conditions of different opinions and within their professional competence, comply with the rules of medical ethics, laws and regulations on working with confidential information, preserve medical secrets, and master the basics of office management.

<b>Social and personal competencies (SLC)</b>	
<b>SLC-1</b>	ability to adapt to social and professional changes, to show independence and exercise self-control in professional activities, to be committed to professional ethical standards;
<b>SLC-2</b>	be able to demonstrate discipline, responsibility, reliability, humanity, tolerance, general culture, and lead a healthy lifestyle. Strive for continuous professional development, self-knowledge, self-development, self-actualization, be able to manage your time, plan and organize your activities, be able to build a strategy for personal and professional development and training;
<b>SLC-3</b>	show self-confidence, be emotionally stable, critical and self-critical, and be tolerant of other opinions and positions. Possess the skills of interpersonal relations (the ability to act together, friendly relations with others, etc.), strives for constructive behavior in conflict situations. Observe legal and ethical norms, rights and obligations of a citizen;
<b>SLC-4</b>	possess multimedia technologies, be critical of the information disseminated by mass media, be able to independently collect, save, analyze, transform, acquire new knowledge by analyzing and synthesizing various information, etc. be fluent in personal computer software and office equipment.

<b>Instrumental competencies (IC)</b>	
<b>IC-1</b>	ability, and willingness to determine environmental parameters using hygiene tools and appliances;
<b>IC-2</b>	ability and readiness to work with medical devices and equipment.

<b>Professional competencies (PC)</b>	
---------------------------------------	--

<b>PC-1</b>	ability and readiness to study and assess factors of the human environment and the body's response to their effects and health conditions, to interpret the results of hygiene studies and to implement sanitary-hygienic and anti-epidemic measures to prevent infectious and non-communicable diseases,
<b>PC-2</b>	ability and readiness to conduct sanitary and epidemiological surveillance of labor and industrial processes, technological equipment, the appearance in the production environment of chemical, physical, biological and other factors affecting the health of employees, as well as forecasting their danger, and determining recommendations for planning, designing, recognizing and interpreting harmful factors;
<b>PC-3</b>	ability and readiness to conduct sanitary and epidemiological surveillance of the human environment in the locality, objects of domestic and drinking water supply, housing and communal services, medical and preventive organizations.
<b>PC-4</b>	ability and readiness to conduct sanitary and epidemiological surveillance of the production and sale of food products, their quality and safety, to assess the actual nutrition of the population, to participate in the development of comprehensive programs for optimizing and correcting the nutrition of various population groups, including in order to overcome micronutrient deficiencies, as well as for public and hospital catering facilities.
<b>PC-5</b>	ability and readiness to assess the physical development of children and adolescents as an indicator of health and conduct sanitary and epidemiological surveillance of the conditions of stay, education and the state of children's educational organizations
<b>PC-6</b>	ability and readiness to conduct sanitary and epidemiological surveillance of the hygienic provision of troops and the habitat of military personnel.
<b>PC-7</b>	ability and readiness to conduct sanitary and epidemiological examinations, investigations, surveys, studies, tests, toxicological, hygienic and other types of assessments, design documentation of supervised facilities, products, services, works in order to establish compliance or non-compliance with the established requirements.
<b>PC-8</b>	ability and readiness to investigate and analyze indicators of infectious and non-communicable diseases of the population, plan and conduct anti-epidemic measures in foci of infectious diseases, on the territory of natural focal infections, as well as organize vaccination of the population, conduct and evaluate its effectiveness and safety.
<b>PC-9</b>	Ability and readiness to study public health using data from official accounting documents, using sanitary-statistical and epidemiological methods, as well as on the basis of preliminary and periodic medical examinations;
<b>PC-10</b>	capable and ready to take samples and conduct laboratory research using physical, chemical, biological and bacteriological methods, etc. methods;
<b>PC-11</b>	it is able and ready to interpret the obtained object survey data and make

	appropriate decisions based on hygiene standards: technical regulations, standards, MPC, traffic regulations, regulations, SNIIP, orders, etc.;
<b><i>Hygienic and anti-epidemic diagnostics</i></b>	
<b>PC-12</b>	ability and willingness to identify cause-and-effect relationships in the system: "human environment factor-population health»;
<b>PC-13</b>	ability and readiness to determine the degree of exposure of the employee's body to harmful factors of working conditions and its assessment, investigation of the causes of occupational diseases and poisoning;
<b>PC-14</b>	ability and readiness to assess the ecological situation of a populated area, and identify health risks associated with sources of environmental pollution;
<b>PC-15</b>	Ability and willingness to identify and assess risks to the health of children and adolescents in the process of staying and studying in various children's institutions;
<b>PC-16</b>	Ability and willingness to identify cause-and-effect relationships of alimentary health;
<b>PC-17</b>	Ability and willingness to identify the effects of radiation exposure on human health;
<b>PC-18</b>	ability and readiness to identify risks of the habitable environment on the health of military personnel;
<b>PC-19</b>	ability and willingness to study epidemiological diseases in order to establish the causes and conditions of its development;
<b><i>Therapeutic activities</i></b>	
<b>PC-20</b>	ability and readiness to provide first aid in life-threatening emergencies, as well as in various extreme conditions;
<b>PC-21</b>	able and ready to study the etiology, clinic of various diseases, prevention measures;
<b><i>Psychological and pedagogical activity, hygienic education</i></b>	
<b>PC-22</b>	capable and ready to carry out sanitary educational work among the population on disease prevention, healthy lifestyle and health promotion, as well as the implementation of hygienic education of personnel of supervised facilities;
<b><i>Organizational and managerial activities</i></b>	
<b>PC-23</b>	ability and readiness to analyze the results of their own activities and the activities of bodies performing control and supervision functions in the field of ensuring the sanitary and epidemiological welfare of the population, protecting the rights of consumers and the consumer market, institutions performing their activities in order to ensure state sanitary and epidemiological supervision in the Kyrgyz Republic, other health care institutions, taking into account the requirements of official legislative acts of the Kyrgyz Republic., regulatory and legal documents;
<b>PC-24</b>	ability and willingness to make managerial decisions aimed at preserving the health of the population in the face of adverse effects of human

	environmental factors;
<b>PC-25</b>	ability and willingness to develop and evaluate the effectiveness of prevention strategies separately or in collaboration with other professionals to ensure effective monitoring;
<b><i>Research activities</i></b>	
<b>PC-26</b>	able and ready to study various sources of scientific and medical literature, as well as literature on hygiene, sanitation and epidemiology;
<b>PC-27</b>	capable and ready to learn new approaches and methods for studying human environmental factors.

## CHAPTER 2. DISCIPLINARY COMPETENCIES IN HYGIENE AND EPIDEMIOLOGY

<b>Theoretical foundations</b>	
<b><u>2.1.1. GENERAL HYGIENE</u></b>	Level
General hygiene, its purpose and objectives. Methods of hygienic research.	2
Hygienic diagnostics of the population's health status.	2
Environmental factors and public health.	
<b><i>Air hygiene</i></b>	
Hygienic significance of the physical properties of air and its role in human life.	2
Hygienic significance of the chemical composition of air and its role in human life.	2
Climatic conditions and human health.	
Solar radiation, impact on human health.	2
<b><i>Water hygiene</i></b>	
Water as an environmental factor, its impact on human health.	2
Natural mineral composition of water, its significance for humans. Diseases caused by the unusual mineral composition of water, their prevention.	2
Water as a source of infectious diseases.	2
Methods for improving water quality.	2
<b><i>Food and nutrition</i></b>	
Nutrition and human health.	2
Modern aspects of rational nutrition.	2
Food quality and safety.	2
<b><i>Soil hygiene</i></b>	

Hygienic characteristics of the soil, impact on health.	2
<b><i>Occupational health and safety</i></b>	
Influence of working conditions on human health.	2
<b><i>Environmental pollution</i></b>	
Dust pollution of the environment, impact on public health.	2
Noise, vibration, electromagnetic pollution of the environment, impact on human health.	2
<b><i>Child and adolescent health</i></b>	
Environmental factors affecting the health of children and adolescents.	2
<b><i>Synthetic materials in everyday life and medicine</i></b>	
Hygiene of the use of synthetic materials, the impact on health.	2
<b><u>2.1.2. OCCUPATIONAL HEALTH</u></b>	
Occupational health, its goals and objectives. Working conditions and their components.	2
<b><i>Industrial hazards</i></b>	
Harmful and dangerous production factors and their impact on the working person's body.	2
General principles and main directions of prevention of occupational diseases and poisoning.	2
<b><i>Labor physiology</i></b>	
Fundamentals of labor physiology. Types of labor activity. Functional state of the body at work.	2
Physiological foundations of ergonomics, technical aesthetics and scientific organization of work, their role in maintaining human health and performance.	1
Fundamentals of labor psychology, engineering psychology.	1
Fundamentals of prevention of fatigue and overwork. Measures to improve human performance.	2
<b><i>Atmospheric pressure</i></b>	
Increased atmospheric pressure	2
Reduced atmospheric pressure	2
<b><i>Meteorological conditions at the workplace</i></b>	
Industrial microclimate. Influence of the industrial microclimate on the body of workers. Adaptation and acclimatization when working in a heating and cooling climate.	1
Influence of harmful factors of the industrial environment on the body against the background of an unfavorable microclimate.	2
<b><i>Industrial dust</i></b>	
Industrial dust as an occupational hazard.	2
<b><i>Mechanical vibrations</i></b>	
Production noise as an unfavorable factor of the production	2

environment. Ultrasound and infrasound as unfavorable factors of the production environment.	
Production vibration (general and local) as an unfavorable factor of the production environment.	2
<b><i>Production radiation</i></b>	
Electromagnetic fields of radio frequencies and laser radiation as industrial hazards.	2
Occupational health when working with ionizing radiation sources	2
Aeroionization in a production environment.	1
<b><i>Industrial toxicology</i></b>	
Modern problems of industrial toxicology. Industrial poisons as an occupational hazard.	2
Fundamentals of toxicometry.	2
Metals as a harmful and dangerous production factor. Prevention of poisoning.	2
Organic solvents as occupational hazards. Irritating gases and carbon monoxide, like occupational poisons.	2
Combined action of chemicals. Combined effects of chemical and physical factors.	2
Biologics, as production factors of biological nature.	2
Carcinogenic production factors.	2
Allergens and allergic occupational diseases.	2
Production factors of biological nature. Professional zoo anthroponoses.	2
Occupational health issues when working with pesticides and mineral fertilizers.	2
Occupational health issues when working with industrial carcinogenic factors.	2
<b><i>Industrial ventilation</i></b>	
Hygienic basics of natural and mechanical ventilation industrial premises.	2
<b><i>Industrial lighting</i></b>	
Hygienic bases of natural and artificial lighting of industrial premises.	2
<b><i>Occupational health in selected industries and agriculture</i></b>	
Occupational health in the mining and coal industry.	2
Hygienic assessment of the working conditions of employees of gold mining plants	2
Occupational health in agricultural production.	2
Occupational health in light industry.	2
Occupational health in the machine-building industry.	2

Hygienic assessment of the working conditions of HPP employees.	2
Organization and implementation of workplace certification.	2
<b><i>Occupational health of women and adolescents</i></b>	
Occupational health of women.	2
Occupational health of adolescents.	2
<b><u>2.1.3. COMMUNAL HYGIENE</u></b>	
as a science, and its significance in preventive medicine.	2
The main legislative, policy and regulatory documents on municipal hygiene and environmental protection. Technical regulations of the Kyrgyz Republic	1
<b><i>Water and water supply hygiene. Protection of water bodies</i></b>	
Hygiene of water supply in populated areas. Hygienic rationing of the composition and properties of drinking water. Water consumption standards and regime.	2
Hygienic characteristics and protection of water intake sources for domestic drinking water supply. Sanitary characteristics of underground and surface water sources. Sanitary protection zones)	2
Hygienic characteristics of methods and methods of water treatment for centralized household and potable water supply in populated areas. Methods of disinfection of drinking water.	2
Sources of water pollution.	2
Formation conditions and sanitary characteristics of urban wastewater. Urban wastewater. Hygienic assessment of cleaning and disinfection methods.	1
System of measures for sanitary protection of water bodies. Organization of sanitary supervision.	2
Hygienic requirements for drinking water distribution systems. Centralized hot water supply. Natural and synthetic materials used in water supply practice.	2
Preventive and ongoing sanitary supervision in the field of drinking water supply in populated areas. The system of documents of sanitary legislation.	2
Hygienic characteristics of the features of domestic and industrial wastewater treatment.	1
State sanitary supervision over the state of water bodies from pollution.	2
<b><i>Soil hygiene and cleaning of populated areas</i></b>	
Soil hygiene in populated areas. Sanitary indicators of the soil. Principles and methods of hygienic rationing. Content of exogenous chemicals.	2
Measures for sanitary protection of the soil of populated areas. Basic schemes for cleaning populated areas.	2

Modern legal bases of soil protection. Soil composition and physical properties, their hygienic and epidemiological significance and assessment.	1
Sanitary cleaning of populated areas. A system of measures to ensure hygienic safety in the collection, disposal, neutralization, processing and disposal of industrial and consumer waste.	1
Sanitary assessment of solid and liquid waste disposal facilities.	2
<b><i>Air hygiene</i></b>	
Air hygiene. The main sources and components of atmospheric air pollution and patterns of the spread of technogenic pollutants in the atmosphere.	2
Basic principles and methods of hygienic regulation of chemicals in atmospheric air. Influence of atmospheric air composition on the health and living conditions of the population.	1
System of measures for sanitary protection of atmospheric air. Tasks of preventive and ongoing sanitary supervision.	2
State and sanitary supervision, a system for monitoring the quality of atmospheric air in populated areas.	2
Sanitary and technical measures for the protection of atmospheric air.	1
<b><i>Hygiene of residential and public buildings</i></b>	
The problem of noise in cities. Impact of noise on public health. Hygienic rationing and measures to protect the population from urban noise.	2
Hygienic characteristics and assessment of light and insolation conditions in residential and public buildings. Hygienic rationing.	2
Microclimate and air environment of the dwelling. Hygienic assessment of engineering heating and ventilation systems in residential and public buildings.	2
Electromagnetic fields. EMF sources, their characteristics, units of measurement, and evaluation.	2
A set of measures to protect the population from exposure to electromagnetic fields.	1
Hygiene of residential and public buildings. Housing as a leading element of the artificial human environment. A system of environmental factors in a dwelling.	1
Hygienic characteristics of finishing materials used in the construction of residential and public buildings.	1
Impact of the residential environment on public health. Hygienic normalization of intraperitoneal environment parameters.	1
<b><i>Hygiene of populated areas</i></b>	
Organization of regional and urban planning design. Basic principles and hygienic significance of regional planning, its stages.	2

Hygienic bases and issues of planning development and improvement of populated areas.	1
Hygiene issues related to the infrastructure of populated areas.	2
Hygiene of planning rural settlements.	2
<b><i>LPO hygiene</i></b>	
Hygienic problems of medical and preventive institutions. Factors of the nosocomial environment and their hygienic rationing.	1
Hygienic basics of planning and operation of medical institutions.	2
Hygienic features of heating, ventilation, microclimate, natural and artificial lighting, as well as the air environment in the premises of medical institutions.	2
Sanitary and hygienic requirements for the internal layout and arrangement of specialized departments of the hospital.	2
Hygienic bases of prevention of nosocomial infections. Collection and disposal of medical waste.	2
<b><u>2.1.4. FOOD HYGIENE</u></b>	
Modern problems of population nutrition. Methods of research and control.	
Hygienic examination of food products for quality and safety (technical regulations).	2
<b><i>Physiological and hygienic basis of nutrition</i></b>	
Rational nutrition and basic hygiene requirements for its construction.	2
Energy requirements of the body for nutrients and energy. Carbohydrates as the main source of energy.	2
Hygienic aspects of increasing the protein content of food	1
Biological role and nutritional value of fats and lipids	2
Vitamin content of the diet and their importance in nutrition	2
Minerals and their role in nutrition	1
The importance of vitamin-like substances in maintaining and promoting health	
<b><i>Nutritional and biological value of food products, and their hygienic characteristics.</i></b>	
Milk and dairy products.	2
Products of lactic acid fermentation	2
Mixed fermentation products	2
National fermented milk products (ayran, suzmo, kurut, kaymak, etc.)	2
Meat of different animals	2
Horse meat and yak meat	2
National sausage products	2
Poultry meat.	2

Eggs and egg products.	2
Fish and fish products.	2
Canned food and concentrates.	2
Grain products.	2
Non-alcoholic and national drinks.	2
Fats and oils.	2
Local berries, fruits and vegetables	2
Ether containing products	2
<b><i>Production supervision</i></b>	
Grain products	2
Milk and dairy products	2
Non-alcoholic beverages	2
Meat and meat products	2
Fish and fish products	2
Canned food of animal and vegetable origin	2
National meat and fermented milk products and beverages	2
Jellies, potions, meat bread	2
Fats and oils	2
Confectionery and honey products	2
<b><i>Food poisoning and its prevention</i></b>	
Food poisoning of non-microbial etiology. Prevention.	2
Food poisoning of microbial etiology. Prevention.	2
<b><i>Therapeutic, dietary and functional nutrition</i></b>	
The importance of food products and dishes in medical nutrition.	2
Therapeutic nutrition for micro elements and hypo vitamins characteristic of the population of the Kyrgyz Republic.	2
Modern hygienic requirements for hospital food stores	2
Preventive food rations under particularly harmful working conditions	1
Characteristics, chemical composition and energy value of the main variants of standard diets	1
Characteristics, chemical composition and energy value of hypocaloric diet options	1
Characteristics, chemical composition, and energy value of protein-fat-oriented diet options.	1
Characteristics, chemical composition, and energy value of low-protein diet options.	1
Characteristics, chemical composition and energy value of diet options with mechanical and chemical sparing.	1
Nutrition and prevention of overweight and type 2 diabetes	2
Diseases associated with malnutrition	2

The relationship between nutrition and chronic non communicable diseases	2
Nutrition and prevention of cardiovascular diseases	2
Nutrition and cancer prevention	2
<b><i>Features of nutrition of individual population groups</i></b>	
Features of nutrition of the population living in the Far North, hot climate and high mountains	2
Features of rational nutrition of the adult working-age population	1
Nutrition features of pregnant and lactating women	2
Features of rational nutrition of the elderly and old people	2
Features of rational nutrition of athletes	2
Food hygiene during mental and physical labor	2
Food hygiene for mining and agricultural workers	2
<b><i>Public catering companies</i></b>	
Hygienic requirements for public catering establishments	
Hygiene requirements for markets and food stores	
Hygienic requirements for the confectionery industry	
The importance of vitamin-like substances in maintaining and promoting health	1
Minor biologically active components of food and their role in the prevention of major non-communicable diseases	1
Microbiological control of food quality and sanitary regime at food enterprises. Sanitary and microbiological control of food products of plant origin	2
Sanitary protection of food products and food raw materials. Hygienic regulation, registration and certification of food products in the Kyrgyz Republic	2
Safety of food additives, their classification, characteristics, indexing and rationing	
Principles of food fortification	
<b><u>2.1.5. HYGIENE OF CHILDREN AND ADOLESCENTS</u></b>	
<b><i>Hygiene of children and adolescents and its development</i></b>	
Hygiene of children and adolescents as a scientific discipline and a practical branch of healthcare. History of hygiene development in children and adolescents.	1
<b><i>Growth and development of the child's body. Health of the younger generation.</i></b>	
Basic patterns of growth and development of the child's body. Age periodization. Acceleration.	1
Physical development as an indicator of health.	2
Health of children and adolescents. Factors affecting the health status of children and adolescents.	2

<b><i>Hygienic basics of the daily routine</i></b>	
Physiological bases of children's activity. Activity as a factor of growth and development of children and adolescents.	2
Hygienic basics of building a daily routine for children and adolescents.	2
<b><i>Hygiene of educational activities of children and adolescents</i></b>	
Hygienic foundations of education and training in preschool institutions.	2
Hygienic aspects of children's functional readiness for systematic learning.	2
Hygienic principles of organization of the educational process in general education institutions.	1
Features of fatigue development in children and adolescents.	2
Hygienic bases of computerization of training.	2
<b><i>Hygiene of labor, polytechnic and industrial training</i></b>	
Hygienic and physiological bases of labor education and training of children and adolescents. The influence of labor on a growing organism.	1
Influence of occupational factors on the body of adolescents.	2
Medical and physiological bases of professional orientation and consultation.	1
Fundamentals of legislation on labor protection of adolescents.	2
<b><i>Physical activity and hygiene of physical education of children and adolescents</i></b>	
Biological need for movement depending on the age and gender of children.	2
Hygienic and physiological foundations of physical education.	2
Hygienic principles of physical education organization. Hardening and its physiological essence.	2
Medical supervision of physical education.	2
<b><i>Food hygiene for children and adolescents</i></b>	
Features of metabolism and energy of a growing organism.	2
Hygienic principles of the regime and organization of nutrition for organized and unorganized groups.	2
Organization of meals in children's and adolescent institutions.	2
<b><i>Hygiene of the environment of development, upbringing and training of children and adolescents</i></b>	
Hygienic requirements for clothing and footwear for children and adolescents.	2
Hygiene requirements for toys.	2
Hygiene requirements for children's books, textbooks, and writing supplies.	2

Hygienic requirements for school furniture, equipment and their location.	2
<b><i>Hygienic principles of placement, planning and operation of institutions for children and adolescents</i></b>	
Fundamentals of design, construction, reconstruction and operation of children's institutions.	2
Hygienic principles of planning various educational and health-improving institutions.	2
Air-heat regime, hygienic requirements for lighting, organization of water supply in children's and adolescent institutions.	2
<b><i>Hygienic education of children and adolescents</i></b>	
Hygienic education in preschool and educational institutions of children and adolescents.	2
Hygienic aspects of sex education.	2
Hygienic education of staff of children's and adolescent institutions and parents.	2
Causes of forming bad habits in children and adolescents (smoking, substance abuse, alcoholism, drug addiction) and their prevention.	1
<b><i>Medical and sanitary-epidemiological support of children and adolescents</i></b>	
International acts and legislative bases in the field of child and adolescent health protection.	1
Basic principles of preventive and curative care for children.	2
State sanitary and epidemiological supervision of children's and adolescent institutions.	2
The role of the sanitary doctor in the hygiene of children and adolescents.	2
<b><u>2.1.6. RADIATION HYGIENE</u></b>	
Radiation hygiene, its goals and objectives	1
<b><i>Radiation sources and their effects on the body</i></b>	
Radiation sources. Basic laws of the effect of ionizing radiation on the body	1
Natural sources of ionizing radiation and their hygienic significance	2
Isotopes and radiation in modern industry	2
<b><i>Dose exposures</i></b>	
Regulation of human exposure (Technical Regulations of the Kyrgyz Republic)	1
Radioisotope diagnostics and its significance in medicine	1
<b><i>Occupational health and radiation safety</i></b>	
Hygienic aspects of radionuclide transport and storage	2
Occupational health during flaw detection	1
Issues of ensuring radiation safety when working with closed and open sources of ionizing radiation	1

<b><i>Sanitary and hygienic supervision of the Kyrgyz Republic</i></b>	
State sanitary supervision in the field of radiation hygiene	2
Sanitary-dosimetry and medical control (SDK)	2
Radiation-hygienic and social-hygienic monitoring in the Kyrgyz Republic	2
<b><i>Environmental protection from radioactive contamination</i></b>	
Impact of radioactive contamination on the environment	2
Environmental protection from radioactive contamination	2
Problems of uranium tailings dumps in the Kyrgyz Republic	2
<b><u>2.1.7. MILITARY HYGIENE</u></b>	
Military hygiene is the main preventive discipline of military medicine, the purpose of training. Hygienic provision of troops.	1
Sanitary supervision in the Armed Forces.	1
Forces and means used by the medical service of the organization of hygienic support.	1
Hygiene of troop deployment.	1
Fundamentals of organization and water supply of troops in the field.	1
Fundamentals of organization and nutrition of troops.	1
Occupational health in the main branches of the armed forces.	1
Hygiene of troop movement.	1
<b><u>2.1.8. GENERAL AND CLINICAL EPIDEMIOLOGY</u></b>	
<b><i>The concept of the epidemiological process of infectious diseases.</i></b>	
Structure of the epidemiological process. Sections of the epidemiological process: factors, mechanisms of development and manifestation. Classification of infectious diseases by sources of infection, transmission mechanism, and etiology.	1
<b><i>Measures aimed at breaking the transmission mechanism</i></b>	
Means of disinfection, disinfection and deracination. The role of sterilization in the prevention of hem contact infections. The concept and features of infection control in medical institutions of various profiles.	1
<b><i>Immune prophylaxis in the fight against infections</i></b>	
Characteristics of immune biological preparations. Types of preventive vaccinations. Organization of vaccination business. Safety tactics of preventive vaccinations.	1
<b><i>Epidemiological surveillance system</i></b>	
Goals and objectives of epidemiological surveillance. Types and sections of epidemiological surveillance.	1
<b><i>Epidemiology and evidence-based medicine in epidemiology</i></b>	
Goals and objectives of epidemiological diagnostics, sections of epidemiological diagnostics. The use of evidence-based medicine methods in epidemiological studies.	1

<b><i>Epidemiology of intestinal infections</i></b>	
Features of epidemiology of TB, shigellosis, salmonellosis, viral hepatitis A, viral hepatitis E, cholera, polio, Escherichia coli, rotavirus infection, staphylococcal diarrhea, enterovirus infections (Coxsackie and ESNO).	1
<b><i>Epidemiology of aerosol infections</i></b>	
Features of epidemiology of diphtheria, measles, rubella, mumps, whooping cough, chicken pox, scarlet fever, meningococcal infection, tuberculosis, influenza and ARVI, mononucleosis, micro plasmodia.	1
<b><i>Epidemiology of vector-borne infections</i></b>	
Features of epidemiology of typhus, plague, lice-borne recurrent typhus, hemorrhagic fevers, tick-borne encephalitis.	1
<b><i>Epidemiology of hem contact infections</i></b>	
Features of epidemiology of viral hepatitis B, viral hepatitis C, and viral hepatitis D, HIV infection.	1
<b><i>Epidemiology of skin infections</i></b>	
Features of epidemiology of rabies, tetanus, anthrax, glandes, microsporia, trichophytosis.	1
<b><i>Epidemiology of parasitic diseases</i></b>	
Features of epidemiology of malaria, toxoplasmosis, leishmaniosis, amoebiasis, giardiasis, ascariasis, hymenolepidosis, hookworm disease, echinococcosis, teniosis, diphyllbothriosis, toxocariasis, trichinosis, opisthorchiasis, fascioliasis.	1
<b><i>Epidemiology of noncommunicable diseases</i></b>	
Features of epidemiology of cardiovascular, bronchopulmonary, urological, and oncological diseases.	1
<b><u>2.1.9. MILITARY EPIDEMIOLOGY</u></b>	
Theoretical and methodological foundations, goals and objectives of military epidemiology. The concept of bacteriological weapons. Types of sanitary and epidemiological intelligence, BS indication. Fundamentals of anti-bacterial protection of troops.	1

Practical skills	Level	But	In	With	D
<b><u>2.2.1. GENERAL HYGIENE</u></b>					
<b><i>Air exploration</i></b>					
Study of air temperature and humidity.	II	But	In		D
Determination of air mobility and atmospheric pressure.	II	But	In		D

Determination of the complex impact of physical factors of air on the human body.	II	But	In		D
CO Definition <sub>2</sub> as an indicator of "anthropogenic" air pollution.	II	But	In		D
Study of natural and artificial light conditions.	I	But	In		D
<b><i>Water research</i></b>					
Determination of water hardness and fluorides in water.	I	But	In		D
Determination of chemical and biological indicators of water pollution by organic substances.	I	But	In		D
Water clarification.	II	But	In		D
Water disinfection.	II	But	In		D
Epidemiological assessment of water safety.	II	But	In		D
<b><i>Nutrition Research</i></b>					
Determination of nutrition adequacy by anthropometric indicators.	II	But	In		D
Food status assessment.	I	But	In		D
Sanitary and chemical methods of food research.	I	But	In		D
<b><i>Soil research</i></b>					
Soil testing for physical, mechanical and chemical properties.	I	But	In		D
<b><i>Air pollution research</i></b>					
Determination of toxic impurities in indoor air, as well as degradation products of plastic and polymer materials.	I	But	In		D
Study of air dustiness.	II	But	In		D
Study of noise and vibration.	I	But	In		D
<b><i>Labor and labor processes</i></b>					
Study of the body's reactions at work.	II	But	In		D
<b><i>Studying the health of children and adolescents</i></b>					
Research and evaluation of physical development of children and adolescents.	II	But	In		D
<b><u>2.2.2. OCCUPATIONAL HEALTH</u></b>					
<b><i>Labor physiology</i></b>					
Research and evaluation of the functional state of the working person's body.	2	But	In		D
Research and evaluation of changes in the body during physical work.	2	A	B		D
Research and evaluation of changes in the body during mental work.	2	A	B		D

Establishment of classes of working conditions based on indicators of severity and intensity of the labor process.	2	A	B		D
Application of psychology methods in improving labor productivity.	2	A	B		D
Assessment of working conditions by indicators of occupational hazards and hazards.	2	A	B		D
Organization and implementation of hygiene training and education at the enterprise.	2				D
<b><i>Meteorological conditions at the workplace</i></b>					
Researches industrial microclimate.	2	A	B		D
Hygienic assessment of microclimate conditions.	2	A	B		D
<b><i>Industrial dust</i></b>					
Studies of industrial dust of mainly fibrogenic action	2	A	B		D
Assessment of working conditions when exposed to aerosol of mainly fibrogenic action	2	A	B		D
<b><i>Mechanical vibrations</i></b>					
Research and hygienic assessment of noise in industrial environments.	2	A	B		D
Research and hygienic assessment of general and local vibration in the workplace.	2	A	B		D
<b><i>Production radiation</i></b>					
Research and hygienic assessment of non-ionizing radiation in production.	2	A	B		D
<b><i>Industrial toxicology</i></b>					
Control over the content of industrial poisons in the air of the working area.	2	A	B		D
Chemical analysis of harmful substances in the air of the working area. Express methods for determining harmful substances in the air.	2	A	B		D
Assessment of toxicity and hazard of chemical compounds.	2	A	B		D
Determination of the CVI and MPC of harmful substances based on toxicometric indicators.	2	A	B		D
Hygienic assessment of toxicity and hazard of metal compounds, organic solvent compounds and diluents widely used in production.	2	A	B		D
Hygienic assessment of working conditions and safety when working with pesticides and mineral fertilizers.	2	A	B		D
<b><i>Industrial ventilation</i></b>					

Examination and hygienic assessment of natural industrial ventilation – aeration.	2	A	B		D
Evaluation of the operation of mechanical ventilation units and the efficiency of the ventilation system.	2	A	B		D
<b><i>Industrial lighting</i></b>					
Examination and hygienic assessment of natural and combined industrial lighting.	2	A	B		D
Survey and hygienic assessment of industrial artificial lighting.	2	A	B		D
<b><i>Accounting, analysis and prevention of morbidity of workers in the workplace.</i></b>					
Accounting, registration and investigation of occupational diseases and poisoning	2	A			D
Accounting and analysis of the general morbidity of workers (with VUT).	2	A			D
Procedure for registration, accounting, and analysis of occupational injuries.	2	A			D
Organization and conduct of mandatory medical examinations.	2	A			D
Development and implementation of medical and preventive measures to improve working conditions and protect the health of employees.	2	A			D
Assessment of medical services provided to workers and employees of industrial enterprises.	2	A			D
<b><i>Personal protective equipment</i></b>					
Assessment of various types of personal protective equipment (PPE) of workers against harmful and dangerous industrial factors.	2	A	B		D
<b><i>Production of building materials</i></b>					
Assessment of working conditions in the production of building materials and construction and measures to combat harmful production factors.	2	A			D
<b><i>Hygienic requirements for the design and maintenance of industrial enterprises</i></b>					
Expertise of situational and master plans of industrial enterprises.	2	A		C	D
Expertise of the project of a complex of auxiliary (sanitary) premises of enterprises.	2	A		C	D
Expertise of industrial ventilation projects.	2	A		C	D
Expertise of industrial lighting projects.	2	A		C	D
Assessment of working conditions based on factors of the production environment and the	2	A	B		D

labor process.					
Sanitary and hygienic survey of existing industrial enterprises.	2	A	B		D
Sanitary and hygienic survey of operating agricultural enterprises.	2	A	B		D
<b><u>2.2.3. COMMUNAL HYGIENE</u></b>					
<b><i>Water and water supply hygiene</i></b>					
Normative and methodological documents in the practice of domestic drinking water supply.	2				
Sanitary supervision of municipal hygiene facilities.	2	A	B	C	D
In collection of centralized drinking water supply sources in the practice of sanitary supervision	2			C	D
Hygienic assessment of drinking water quality.	2	A	B	C	D
Sanitary expertise of projects of sanitary protection zones for centralized drinking water supply sources.	2	A	B	C	D
With Unitarian expertise of water supply projects in populated areas from underground and surface sources.	2			C	D
Consideration of treatment plant schemes for water intake from underground and surface sources.	2	A	B	C	D
Hygienic assessment of methods of water treatment and treatment facilities from water supply sources (coagulation).	2	A	B		D
Hygienic assessment of drinking water disinfection methods. Laboratory control of chlorination efficiency.	2	A	B		D
Organization and implementation of sanitary and laboratory control of drinking water quality. Assessment of drinking water quality based on laboratory analysis.	2	A	B	C	D
Conducting a sanitary survey of a water supply station and evaluating it	2	A	B		D
<b><i>Protection of water bodies</i></b>					
State sanitary supervision and industrial control in the field of protection of water bodies from pollution.	2	A	B	C	D
Determination of sanitary conditions for the discharge of wastewater into a reservoir	2	A	B	C	D
Organization and implementation of state	2	A	B	C	D

sanitary and epidemiological surveillance in the field of water bodies protection.					
Hygienic assessment of wastewater treatment schemes, urban and rural settlements.	2	A	B		D
Sanitary expertise of water supply projects in populated areas	2	A	B	C	D
Sanitary assessment of the sewerage project.	2	A	B		D
Sanitary inspection of a biological wastewater treatment plant.	2	A	B		D
Sanitary inspection of industrial wastewater treatment facilities.	2	A	B		D
Laboratory testing of wastewater and reservoir water samples. Hygienic assessment of cleaning efficiency.	2	A	B		D
<b><i>Soil hygiene and cleaning of populated areas</i></b>					
Study of the main indicators of soil contamination by exogenous chemical compounds.	2	A	B		D
Assessment of the sanitary condition of the soil in populated areas.	2	A	B	C	D
Sanitary supervision of the organization of cleaning of populated areas.	2	A	B		D
Rules for soil selection for chemical analysis, bacteriological and helminthological studies.	2	A	B		D
Sanitary inspection of waste disposal facilities.	2	A	B		D
Sanitary assessment of solid and liquid waste disposal facilities	2	A	B		D
<b><i>Air hygiene</i></b>					
Organization of monitoring of atmospheric air pollution.	2	A	B		D
Assessment of the content of harmful substances in the atmospheric air.	2	A	B		D
Study of the impact of air pollution on public health.	2	A	B		D
Calculation of the maximum permissible emission for a single stationary source of pollution and its hygienic assessment.	2	A	B	C	D
Study of the patterns of the spread of technogenic pollutants in the atmosphere and its study.	2	A	B		D
Experimental study of the impact of air pollution on public health.	2	A	B		D
Sanitary supervision and industrial control in the field of atmospheric air protection.	2	A	B	C	D

Laboratory tests for sanitary assessment of atmospheric air pollution.	2	A	B		D
<b><i>Hygiene of residential and public buildings</i></b>					
Hygienic assessment of the organization of sanitary protection zones of industrial enterprises.	2	A	B	C	D
Sanitary assessment of natural and artificial lighting of premises when considering projects of residential and public buildings.	2			C	D
Hygienic assessment of the duration of solar radiation in residential buildings and residential development areas.	2	A	B	C	D
Sanitary assessment of heating and ventilation in residential and public buildings.	2	A	B	C	D
Hygienic assessment of the microclimate of residential and public buildings.	2	A	B		D
Hygienic assessment of the noise regime of the residential development area at the stage of preventive sanitary supervision.	2			C	D
Hygienic assessment of the vibration and acoustic factor in the premises of residential and public buildings and on the territory of residential development.	2	A	B		D
hygienically assessment of urban transport highways in Bishkek. Collecting data for evaluating highways.	2	A	B		D
State sanitary supervision in the field of planning and development of populated areas.	2	A	B	C	D
State sanitary supervision in the field of hygiene of residential and public buildings and premises.	2	A	B	C	D
Sanitary expertise of urban and rural planning and development projects.	2			C	D
Hygienic assessment of standard residential building designs and consideration of binding projects.	2			C	D
About limit the density of residential development, the density of the housing stock, and the population density of a micro district.	2			C	D
Sanitary expertise of apartment-type residential building projects.	2			C	D
Sanitary expertise of hospital planning and development projects (SES, sanatorium, etc.).	2			C	D
Sanitary examination of the hospital.	2	A	B		D

Sanitary assessment of bathhouse and laundry projects.	2	A	B		D
Sanitary inspection of the barber shop.	2	A	B		D
Hygienic assessment of building materials	2	A	B		D
Hygienic assessment of swimming pools.	2	A	B		D
Hygienic inspections of water parks	2	A	B		D
<b><u>2.2.4. FOOD HYGIENE</u></b>					
Study of the body's energy expenditure and assessment of the body's energy adequacy					
Study of the chemical composition of the daily diet and nutritional status					
Computational and laboratory methods for studying nutrition in organized groups					
Rules for selecting ready meals and products for examination. Methods for determining humidity and dry residue					
Determination of protein in food and ready meals					
Determination of fat in food and ready meals					
Determination of carbohydrates, minerals and energy values in food and ready meals					
Determination of vitamins in food and ready meals. Determination of the percentage of vitamin loss					
<b><i>Sanitary and hygienic expertise</i></b>					
milk and dairy products					
meat and meat products					
fish and fish products					
grain products					
canned food and concentrates					
fats and oils					
non-alcoholic and national beverages					
Determination of the quality of food fortification. Fortification of ready meals and products					
Sanitary and hygienic expertise of confectionery and honey.					
Investigation and analysis of cases of microbial and non-microbial food poisoning.					
Development of preventive food rations in industries with particularly harmful working conditions					

Sanitary and hygienic assessment of food units of medical and preventive institutions					
Sanitary and hygienic assessment of therapeutic nutrition in medical institutions.					
Hygienic assessment of cooking processes					
Development of dietary nutrition for people working with ionizing radiation					
<b>2.2.5. HYGIENE OF CHILDREN AND ADOLESCENTS</b>					
<b><i>Research and evaluation of physical development of children and adolescents.</i></b>					
Anthropometric studies.	2	A	B		D
Order and sequence development of physical development standards.	2	A	B		D
Assessment of individual and collective physical development.	2	A	B		D
<b><i>Study of the health status of children and adolescents</i></b>					
To study the state of health of children and adolescents by generalizing and individualizing methods.	2	A	B		D
Study of indicators that characterize the health status of children and adolescents.	2	A	B		D
<b><i>Hygienic assessment of the educational process.</i></b>					
Hygienic assessment of the daily routine of children and adolescents based on time sheets.	2	A	B		D
Hygienic assessment of the educational process in preschool institutions.	2	A	B		D
Hygienic assessment of the educational process at school.	2	A	B		D
Hygienic assessment of personal computers and environmental factors shift is used in the classrooms of in form ties and computer engineering of educational institutions.	2	A	B		D
Hygienic assessment of the labor lesson in general education institutions.	2	A	B		D
Hygienic assessment of the physical education lesson for children and adolescents.	2	A	B		D
Hygienic assessment of the organization of the educational process and industrial training in institutions of vocational education (SPTU).	2	A	B		D
Studies of the functional state of the body and the performance of the central nervous system in children and adolescents.	2	A	B		D
<b><i>Hygienic assessment of physical education</i></b>					

Hygienic assessment of physical education in preschool and general education institutions.	2	A	B		D
Hygienic assessment of physical education venues, sports equipment and equipment for children and adolescents.	2	A	B		D
Medical supervision of physical education of children and adolescents.	2	A	B		D
<b><i>Hygienic assessment of nutrition.</i></b>					
Study of nutrition of children and adolescents (unorganized groups).	2	A	B		D
Study and organization of nutrition for organized groups of children and adolescents.	2	A	B		D
Sanitary and hygienic inspection of the food hall and children's dairy kitchen.	2	A	B		D
<b><i>Hygienic assessment of furniture and equipment of children's and adolescent institutions.</i></b>					
Hygienic assessment of preschool equipment.	2	A	B	C	D
Hygienic assessment of school teaching equipment.	2	A	B	C	D
<b><i>Hygienic assessment of children's household items.</i></b>					
Hygienic assessment of children's books, writing materials, and school bags.	2	A	B	C	D
Hygienic evaluation of children's toys.	2	A	B	C	D
Hygienic assessment of children's clothing.	2	A	B	C	D
<b><i>Sanitary and hygienic expertise of projects of children's and adolescent institutions.</i></b>					
Expertise of the project of preschool educational institutions.	2	A	B	C	D
Project expertise of general education institutions of various types (school, boarding school, child and adolescent development centers).	2	A	B	C	D
Hygienic assessment of planning and construction of vocational education institutions (SPTU).	2	A	B	C	D
Hygienic assessment of planning, construction and organization of work of children's health facilities (children's health centers, camps, sanatoriums).	2	A	B	C	D
Hygienic assessment of sanitary facilities and installations (lighting, ventilation, heating, water supply, etc.) in children's and adolescent institutions.	2	A	B	C	D

<b><i>Sanitary and epidemiological supervision of children's and adolescent institutions.</i></b>					
The work of a sanitary doctor in the hygiene of children and adolescents.	2	A	B	C	D
Sanitary and hygienic examination of various types of preschool educational institutions.	2	A	B	C	D
Sanitary and hygienic survey of general education institutions.	2	A	B	C	D
Sanitary and hygienic survey of vocational education institutions.	2	A	B	C	D
Use of basic accounting and reporting forms of medical documentation for studying and evaluating the health status of children's groups.	2	A			D
Certification of products, works and services that pose a potential danger to children and adolescents.	2	A	B	C	D
Food poisoning in children's groups and sanitary and hygienic measures to investigate and prevent them.	2	A	B		D
<b><u>2.2.6. RADIATION HYGIENE</u></b>					
<b><i>Determination of ionizing radiation detection</i></b>					
The main methods of recording AI (ionization, luminescence, scintillation, and photographic methods). Radiometric and spectrometric methods	2		B		D
<b><i>Determination of protection when working with ionizing radiation sources</i></b>					
Calculation methods for determining ionizing radiation doses (time, dose, distance, etc.) and monitoring protection from external radiation	2	A	B	C	D
<b><i>External and internal radiation dosimetry and sanitary examination of environmental objects</i></b>					
Investigation of the effect of ionizing radiation on the body	2	A	B		D
External radiation dosimetry	2		B		D
Determination of the natural radiation background	2	A	B		D
Methods of air sampling and determination for radioactivity, its sanitary assessment	2	A	B		D
Radiometry of water and soil samples and its sanitary assessment.	2	A	B		D
Radiometry of food samples and its sanitary assessment for radioactivity in food products.	2	A	B		D

Determination of radioisotope content in the human body	2	A	B		D
Investigation of contamination of working surfaces with radioactive substances	2	A	B		D
Evaluation of decontamination efficiency (water, air, soil, work surfaces, etc.)		A	B		D
<b><i>Preventive and ongoing state sanitary supervision in the field of Radiation hygiene</i></b>					
Radiation and hygienic assessment of nonmetallic raw materials	2			C	D
Radioactivity assessment of building materials	2		B		D
Radiation monitoring of radiological objects and the environment	2	A	B		D
Preventive sanitary supervision of facilities operating with closed and open sources of ionizing radiation	2	A	B	C	D
Current sanitary supervision of facilities operating with open and closed sources of ionizing radiation (medical and industrial sources)	2	A	B		D
Expertise of projects of facilities using open sources of radioactive radiation	2			C	D
Examination of MRI and CT planning projects	2			C	D
Prevention of radiation accidents and elimination of their consequences	2			C	D
Radiation and hygiene inspection of residential and public buildings	2	A	B		D
Sanitary inspection of environmental objects for the content of natural radionuclides	2	A	B		D
<b><u>2.2.7. MILITARY HYGIENE</u></b>					
Conducting sanitary and hygienic control over the deployment of troops.	1	A	B		D
Conducting sanitary and hygienic control over the nutrition of troops.	1	A	B		D
Conducting sanitary and hygienic control over the water supply of troops.	1	A	B		D
Research on food and water in the context of the use of weapons of mass destruction.	1	A	B		D
Conducting sanitary and hygienic control over working conditions in certain branches of the armed forces.	1	A	B		D
<b><u>2.2.8. GENERAL AND CLINICAL EPIDEMIOLOGY</u></b>					

<b><i>Determination of the forms of manifestation of the epidemiological process and implementation of anti-epidemic measures in foci</i></b>					
Carrying out measures to neutralize the source of infection in various foci of infectious diseases, ensuring the disruption of the transmission mechanism by conducting disinfection, disinfection and deracination measures and contact persons. Use of drugs used in healthcare practice.	2	A	B	C	D
<b><i>Carrying out infection control in hospitals of various profiles</i></b>					
Evaluation of the quality of sterilization of medical instruments, safety of equipment for performing various medical manipulations. Monitoring the safety of medical waste collection and disposal.	2	A	B	C	D
<b><i>Organization of work of the vaccination office in compliance with the safety of preventive vaccinations</i></b>					
Planning preventive vaccinations, monitoring compliance with the cold chain. Analysis of the causes of severe post-vaccination reactions and complications. Assessment of the quality of collective immunity.	2	A	B	C	D
<b><i>Conducting epidemiological surveillance depending on the features of oncological forms and the epidemic situation</i></b>					
Conducting a retrospective and rapid epidemiological analysis, investigating the causes of outbreak morbidity. Use of indicators that characterize morbidity with an assessment of their reliability, representativeness, determination of risk factors with graphical representation and interpretation of the data obtained.	2	A	B	C	D
Conducting anti-epidemic measures in the foci of intestinal infections: TB, shigellosis, salmonellosis, viral hepatitis A, viral hepatitis E, cholera, poliomyelitis, Escherichia coli, rotavirus infection, staphylococcal diarrhea, enterovirus infections (Coxsackie and ESNO).	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds aerosol infections: diphtheria, measles, rubella, mumps, whooping cough, chickenpox, scarlet fever, meningococcal infection, tuberculosis, influenza and ARVI, mononucleosis, micro plasmodia.	2	A	B	C	D

Conducting anti-epidemic measures in hotbeds vector-borne infections: typhus, plague, lice-borne recurrent typhus, hemorrhagic fevers, tick-borne encephalitis.	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds hem contact infections: viral hepatitis B, viral hepatitis C, viral hepatitis D, HIV infection.	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds skin infections: rabies, tetanus, anthrax, glandes, microspore, troche phimosis.	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds external skin infections: epidemiological surveillance of anthrax, brucellosis, sap, leptospirosis, yersiniosis, pseudotuberculosis, foot-and-mouth disease.	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds bio gel minthiasis: echinococcosis, tendinosis, diphylo bothriosis.	2	A	B	C	D
Conducting anti-epidemic measures in hotbeds geo helminthiasis: ascariasis, entire biopsies, toxic acroasis, hookworm disease, stringy lordosis.	2	A	B	C	D
Implementation of anti-epidemic measures in the centers of protozoal infestations: amole biases, giardiasis, toxoplasmosis, leishmaniosis.	2	A	B	C	D
Conducting anti-epidemic measures in the foci of infections caused by insects: scabies, pediculosis.	2	A	B	C	D
Implementation of anti-epidemic measures in the centers of quarantine infections: plague, cholera, yellow fever.	2	A	B	C	D
<b><i>Assessment of the epidemiological situation</i></b>					
On cardiovascular diseases and determination of the risk factor for the development of pathology in the examined territory, prevention measures.	2	A	B	C	D
On bronchopulmonary diseases and determination of the risk factor for the development of pathology in the examined territory, prevention measures.	2	A	B	C	D
On oncological diseases and determination of the risk factor for the development of pathology in the examined territory, prevention measures.	2	A	B	C	D
<b><u>2.2.9. MILITARY EPIDEMIOLOGY</u></b>					

Conducting sanitary and epidemiological reconnaissance, assessing the epidemiological situation in the territory where troops are located. Organization of measures for anti-bacterial protection of troops.	2	A	B	C	D
--	---	---	---	---	---

### CHAPTER 3. SYMPTOMS OF DISEASES

<b><i>Common symptoms</i></b>
Blood loss
Overweight, obese
Weight Loss
Exhaustion, cachexia
Loss of appetite
Eating disorders
Fatigue
Increased daytime sleepiness
Lymphadenopathy
Hyperthermia, fever
Fever in immune deficient individuals
Hypothermia
Sweating disorder
Feeling thirsty, polydipsia
Dehydration (dehydration)
Sudden death
<b><i>Metabolic disorders</i></b>
Hyperglycemia
Hypoglycemia
Changes in the level of calcium and phosphates
Changes in the level of magnesium, potassium, and sodium
Changes in liver test scores
Changes in the serum lipid spectrum
Change in the number of white blood cells, white blood cell formula
Change in the number of red blood cells
Polycythemia, increased hemoglobin levels
Hypoxia, hypoxemia
Hypercapnia, hypercapnia
Proteinuria
Changes in kidney test scores

<b><i>Skin symptoms</i></b>
Pallor of the skin
Cyanosis of the skin
Jaundice of the skin, neonatal jaundice
Puffiness, discoloration of individual parts of the body
Inflammatory skin changes
Skin rashes, acne (acne)
A boil
Tendency to bleed
Itching
Corn
Insect bite
Wounds
Burns
Skin ulceration
Birthmarks (nevus)
Violation of skin pigmentation
Skin tumors
Excessive hair growth (hirsutism)
Hair loss (alopecia)
Changes on the part of the nails
<b><i>Head, Face, neck</i></b>
Headache, episodic / chronic/sudden
Facial pain
Head injury
Toothache
Neck pain
Goiter
<b><i>Ear, throat, nose, mouth, voice, tongue</i></b>
Ear pain
Hearing loss
Discharge from the ear
Tinnitus
Nosebleeds
Nasal congestion
Nasal discharge
Snoring
Pathology of the lips / tongue/mouth
Increased salivation
Dry mouth
Sore throat

Sore throat
Bad breath
Voice changes (hoarseness/aphonic/dysphonia)
<b>Eyes</b>
Gradual deterioration of vision
Sudden partial / temporary loss of vision
Strabismus
Chicken blindness (nyctalopia)
Double vision (diplopia)
Photophobia (photophobia)
Acute eye pain/burning sensation
Foreign body/feeling of sand in the eyes
Itchy eyes
Redness of the eyes ("Red eye»)
Lacrimation
Purulent and mucosal discharge from the eye
Blepharospasm
Abnormal eyeball movements
Pupil pathology
Exophthalmos
Eye injury
Puffiness of the eyelids
<b>Chest</b>
Mammary glands: feeling heavy/sore/tense
Mammary glands: change in size/contour/symmetry
Gynecomastia
Neoplasm in the breast
Mammary glands: skin retraction, nipple
Mammary glands: discharge from the nipple, including galactorrhea
Mammary glands: eczema of the nipple/areola
Wheezing breath
Shortness of breath
Sleep Apnea
Tachypnea
Cough
Hemoptysis
Chest congestion, chest discomfort
Chest pain
Chest injury
Pleural effusion
Heartbeat

Irregular heart rate/bradycardia/tachycardia
High blood pressure
Low blood pressure
<b><i>Abdominal cavity, stomach, intestines</i></b>
Food intolerance
Eating disorders, including dysphagia
Belching (air, undigested food)
Ingestion of a foreign body
Bloating
Formation in the abdominal cavity
Abdominal injury
Heartburn
Epigastric pain
Nausea/vomiting
Abdominal pain
Flatulence
Constipation
Bloody vomiting, melena (tarry stools)
Discoloration or consistency of stool, presence of blood/mucus/pus in the stool
Violation of the act of defecation
Painful act of defecation
Stool incontinence (encopresis)
Rectal bleeding
Itching/pain in the anus
<b><i>Small pelvis, genitourinary system</i></b>
Dysuria
Urinary incontinence (enuresis)
Change in urine color
Lower back pain
Groin pain
Formation in the scrotum, swelling of the scrotum
Discharge from the urethra
Pathology of male external genitalia
Painful sexual intercourse (dyspareunia)
Erectile dysfunction, ejaculation (ejaculation)
Premenstrual syndrome
Violation of the menstrual cycle
Dysmenorrhea
Pelvic pain
Pelvic education
Uterine Prolapse/Pelvic relaxation

Vaginal bleeding: intermenstrual/postmenopausal/during pregnancy/postpartum
Vaginal discharge
Pathology of external female genitalia
Premature menopause (early menopause)
Menopausal complaints (menopause), including hot flashes
Please prescribe contraception
Suspected pregnancy
Indications for genetic consultation
Request for an abortion
A barren couple. Indications for consultation with a specialist
High-risk pregnancy
Insufficient / excessive weight gain during pregnancy
Fever/hyperthermia during pregnancy
Hypertension during pregnancy
Abdominal pain during pregnancy
Swelling during pregnancy
Low water content
Preterm birth
<b><i>Bones, joints, back, limbs</i></b>
Acute pain in the extremities
Typical fractures: radius / scaphoid / fingers/numerus/clavicle/spine/rib/femur/pelvis/Shin
Laceration, open wound
Traumatic limb amputation
Infected wound
Soft tissue injury
Dislocation of the joint
Shoulder injury
Knee injury
Back injury, including spinal cord injury
Polytrauma
Swelling or soreness of the joints
Joint deformity
Morning stiffness
Restriction of joint mobility
Muscle pain (myalgia)
Back/Lower Back Pain
Poor posture
Gait disorder
Intermittent lameness
Leg puffiness/generalized edema

Leg/foot ulcers
Pain/burning/numbness in the legs
<b><i>Newborns, children, and teenagers</i></b>
Crying of a newborn baby
Hypotonic newborn
Diaper rash
Problems associated with breastfeeding
Refusal of food/liquid intake in newborns and children
Enuresis/encopresis in newborns and children
Lameness/pain in the lower extremities in children
Physical and mental retardation in newborns and children
Growth pathology: deceleration and acceleration (acceleration)
Sudden infant death
Earlier / later puberty
Hyperactive child
<b><i>Advanced age, aging</i></b>
Cognitive impairment in the elderly
Elderly people in need of care
Malnutrition in the elderly
Bedridden patients
Restricted mobility in the elderly
Headache, joint pain in the elderly
Polypragmasia in the elderly
Sexual dysfunction in the elderly
Sleep disorders in the elderly
Social isolation of the elderly
Urinary incontinence in the elderly
<b><i>Impaired consciousness, orientation, balance, gait, involuntary movements</i></b>
Vertigo / vertigo: acute, chronic
Impairment/loss of consciousness, coma
Fainting spells
Involuntary movements: convulsions, spasms, convulsions
Acute paralysis, hemiplegia
Sensation of " goosebumps "(paresthesia)
Changing the sense of touch
Tremor/dyskinesia/Tics
Mental, behavioral and psychological problems
Speech/language disorder
Acute behavior/personality change
Obsessive-compulsive symptoms
Aggressive behavior towards others

Self-aggression/suicide risk
Changing emotions and moods
Nervousness/anxiety/tension/acute stress
Agitation/anxiety
Forgetfulness, memory disorders
Attention and concentration disorders
Insomnia/sleep disorders
Alcoholism
Smoking, tobacco use
Drug abuse
Drug abuse and addiction
Suspected poisoning
<b><i>Other problems/reasons for seeking medical help/advice</i></b>
Immunization of newborns/children, periodic preventive examinations of newborns and children
Examination of a healthy child, examination before vaccination
Advice on immunization before traveling to another country (including a tropical one)
Preoperative examination, research
Psychological/physical / sexual abuse
Fear of cancer/heart disease/HIV / sexually transmitted diseases/other diseases
Terminal condition, dying patient
<b><i>Psychosocial and interpersonal issues</i></b>
Loss/death/illness of a loved one
Psychological problems at work
Absenteeism (systematic absenteeism at school, at work)
Patient's financial difficulties/unemployment
Problems with relationships with parents / spouse / partner/child

## CHAPTER 4. DISCIPLINARY COMPETENCIES

Name of the nosology	Level	A	B	C	D
<b><u>4.1. INTERNAL DISEASES</u></b>					
<i>Clinical conditions</i>					
<b><i>RESPIRATORY DISEASES</i></b>					

Acute respiratory infections	1	A			
Pneumonia	1	A			
Bronchial asthma	1	A			
Acute and chronic bronchitis	1	A			D
Chronic obstructive pulmonary disease	1	A			D
Bronchiectasis disease	1	A			D
Emphysema of the lungs. Pneumonia sclerosis	1	A			
Chronic respiratory failure	1	A			
Pulmonary hypertension, pulmonary heart disease	1	A			
Abscess and gangrene of the lungs	1	A			
Pleurisy, dry and exudative. Pleural empyema	1	A			
Pneumothorax, lung atelectasis	1				
<b><i>DISEASES OF THE CIRCULATORY SYSTEM</i></b>					
Hypertension and systemic hypertension	1	A			D
Arterial hypotension	1	A			D
Atherosclerotic disease	1				D
Myocardial infarction	1	A			
Angina pectoris	1	A			
Pericarditis	1				
Post-infarction cardiosclerosis	1	A			
Atherosclerotic cardiosclerosis	1	A			
Congenital and acquired heart defects	1	A			
Myocarditis	1				
Cardiomyopathies	1				
Infectious endocarditis	1				
Rhythm and conduction disorders (arrhythmias, blockages)	1				
Congestive heart failure	1				
Pulmonary embolism	1				
<b><i>DISEASES OF THE DIGESTIVE SYSTEM</i></b>					
Achalasia of the esophagus	1	A			
Peptic ulcer of the esophagus	1	A			
Hiatal hernia	1	A			
Chronic gastritis	1	A			
Functional digestive disorders	1	A			
Functional bowel diseases					
Peptic ulcer of the stomach and duodenum	1	A			
Duo densities	1				
Chronic enteritis	1				
Non-specific ulcerative colitis	1				

Crohn's disease	1			
Acute and chronic pancreatitis	1	A		
Dyskinesia of the biliary tract and gallbladder	1	A		
Cholecystitis. Cholangitis	1	A		D
Cholelithiasis	1	A		D
Post cholecystectomy syndrome	1	A		D
Acute hepatitis of non-viral etiology	1	A		
Chronic hepatitis	1	A		
Cirrhosis of the liver	1	A		
<b><i>DISEASES OF THE URINARY SYSTEM</i></b>				
Glomerulonephritis, acute and chronic	1	A		
Pyelonephritis, acute and chronic	1	A		
Amyloidosis of the kidneys	1			
Chronic kidney disease	1			
Urolithiasis	2	A		D
Toxic kidney damage	1			D
Cystitis, acute and chronic	2	A		D
Urethritis	2	A		D
Congenital anomalies of the kidneys and urinary tract	1			
Prostatitis	2	A		D
Hypertrophy of the foreskin, phimosis, paraphimosis	1	A		
Cryptorchidism	1	A		
Castalia	1	A		
Urinary fistula	1	A		
Urinary incontinence	1	A		
Enuresis	1	A		
<b><i>DISEASES OF THE HEMATOPOIETIC SYSTEM</i></b>				
Post-hemorrhagic anemia	1	A		D
Iron deficiency anemia	1	A		D
In <sub>12</sub> - and folate-deficient anemia	1	A		D
Hemolytic anemia	1	A		
Hypo- and aplastic anemia	1	A		
Hemorrhagic diatheses	1	A		
Agranulocytosis	1	A		
Erythema and erythroid cytolysis	1	A		
Lymphadenopathies	1	A		
DIC-syndrome	1	A		
<b><i>ENDOCRINE SYSTEM DISEASES AND METABOLIC DISORDERS</i></b>				
Diabetes mellitus	2	A		D
Thyroiditis	1	A		
Diffuse toxic goiter	1	A		

Hypoparathyroidism, hyperparathyroidism	1				
Itsenko-Cushing's disease and syndrome	1	A			
Diseases of the adrenal glands (Addison's disease, pheochromocytoma)	1				
Obesity	2	A	B		D
Gout	2	A	B		D
Iodine deficiency conditions and endemic goiter. Hypothyroidism (myxedema)	2	A	B		D
<b><i>DISEASES OF THE JOINTS AND CONNECTIVE TISSUE</i></b>					
Systemic lupus erythematosus	1	A			
Systemic scleroderma	1	A			
Dermatomyositis (primary and paraneoplastic)	1	A			
Nodular per arteritis	1	A			
Rheumatic fever	1	A			
Rheumatoid arthritis	1	A			
Reactive arthritis	1	A			
Deforming osteoarthritis	1	A			
Ankylosing spondylitis	1	A			
Reiter's disease and syndrome	1	A			
Osteoporosis	2	A	B		D
Myositis	1	A			
<b><i>High-altitude diseases</i></b>					
Acute mountain sickness	2	A	B		D
High-altitude pulmonary edema	1	A			
High-altitude brain edema	1	A			
Alpine climate therapy	1				
Selection of people to work in the mountains	1	But			D

<b>4.2. CHILDREN'S DISEASES</b>					
<b><i>Clinical conditions</i></b>					
<b><i>Diseases of newborns</i></b>					
Premature babies. Delayed fetal development	1	A			
Hypoxia and asphyxia of newborns	1	A			
Brain hemorrhages	1	A			
Spinal birth injuries	1	A			
Neonatal jaundice, conjugation, hemolytic, parenchymal	1	A			
Hemorrhagic disease of newborns	1	A			
Intrauterine infections of viral and bacterial etiology	1	A			
Embryo-and fet pathies of newborns	1	A			
Pneumonia patsies of newborns	1	A			

Pneumonia of newborns	1	A			
Anemic conditions of newborns	1	A			
<b><i>Early childhood diseases</i></b>					
Hypo-and vitamin deficiencies	1	A			
Rickets	2	A			
Hyper vitamin D	2	A			
Spasm philia	1	A			
Exudative-catarrhal diathesis	2	A			
Lymphatic-hypo plastic diathesis	1	A			
Neuro-arthritic diathesis	1	A			
Allergic diatheses	2	A			
Hypotrophy	2	A			
Par atrophy	2	A			
<b><i>Respiratory diseases</i></b>					
Bronchitis, acute simple, acute obstructive, recurrent	1	A			
Bronchiolitis, acute, acute obliterating	1	A			
Bronchial asthma	2	A			
Pneumonia, focal, focal-confluent, segmental, croup, interstitial	2	A			
Pleurisy, dry and exudative	1	A			
Diffuse pneumonia sclerosis, idiopathic pulmonary hemosiderosis, Good pasture syndrome, Hama-Rich syndrome	1	A			
Cystic fibrosis	1	A			
<b><i>Diseases of the circulatory system</i></b>					
Congenital heart defects	1	A			
Non-rheumatic myocarditis	1	A			
Myocardial dystrophy	1	A			
Cardiomyopathies	1	A			
Infectious endocarditis	1	A			
Acquired rheumatic heart disease	1	A			
Rhythm and conduction disorders (arrhythmias, blockages)	1	A			
Heart failure, acute and chronic	1	A			
<b><i>Diseases of the digestive system</i></b>					
Gastritis and gastro duo densities	1	But			
Peptic ulcer disease	1	A			
Peptic ulcer of the stomach and duodenum	1	A			
Non-specific ulcerative colitis	1				
Acute and chronic pancreatitis	1	A			
Celiac disease	1	A			
<b><i>Diseases of the liver and biliary tract</i></b>					

Dyskinesia of the biliary tract and gallbladder	1	A			
Cholecystitis. Cholangitis	1	A			
Chronic hepatitis	1	A			
Cirrhosis of the liver	1	A			
<b><i>Diseases of the urinary system</i></b>					
Glomerulonephritis, acute and chronic	1	A			
Nephrotic syndrome	1	A			
Pyelonephritis, acute and chronic	1	A			
Cystitis, acute and chronic	1	A			
Acute kidney injury	1	A			
Chronic kidney disease	1	A			
Tubule patsies, with skeletal abnormalities, polyuria, nephrolithiasis	1	A			
Hereditary nephritis	1	A			
Hemolytic-uremic syndrome	1	A			
<b><i>Diseases of the hematopoietic system</i></b>					
Post-hemorrhagic anemia	1				
Iron deficiency anemia	2	But	In		D
Protein deficiency anemia	1	But			D
In <sub>12</sub> <sup>-</sup> , E-folate deficiency anemia	2	But			D
Hemolytic anemia, inherited and acquired	1				
Hypo-and aplastic anemia	1				
Hemorrhagic vasculitis	1	But			
Idiopathic thrombocytopenic purpura	1				
Hemophilia	1				
Leukemia reactions	1				
<b><i>Diseases of the endocrine system</i></b>					
Diabetes mellitus	2	But			D
Hypothyroidism (myxedema)	2	But			
Diffuse toxic goiter	2	But			
Endemic goiter	2	But			D
Parathyroid diseases, hypoparathyroidism and hyperparathyroidism	1	But			
Obesity	2	But	In		D
Adreno genital syndrome	1	But			
Chronic adrenal insufficiency	1	But			
Acute adrenal insufficiency	1	But			
Growth retardation due to growth hormone deficiency	1	But			
Pituitary gigantism	1	But			
Acromegaly	1	But			
Hypogonadism in boys and girls	1	But			

Premature sexual development in boys and girls	1	But			
<b><i>Diseases of the joints and connective tissue</i></b>					
Systemic lupus erythematosus	1	A			
Systemic scleroderma	1	A			
Dermatomyositis	1	A			
Nodular per arteritis	1	A			
Juvenile rheumatoid arthritis	1	But			
<b><i>Allergic diseases</i></b>					
Anaphylactic shock	2	A		With	
Serum sickness	2	A		With	
Stevens-Johnson syndrome	2	A		With	
Lyell's syndrome	2	A		With	
Food allergies	2	But		With	D
Urticarial	2	A	In	With	D
Angioedema	2	A	In	With	D
Pollinizes	2	A	In	With	D
Immunodeficiency conditions, congenital and acquired	1	But			
<b><i>Hereditary diseases</i></b>					
Shereshevsky-Turner syndrome	1	A			
Klinefelter syndrome	1	A			
Down Syndrome	1	A			
Phenylketonuria	1	A			
Marfan Syndrome	1	But			
<b><u>4.3. CHILDHOOD INFECTIOUS DISEASES</u></b>					
<b><i>Acute intestinal infections</i></b>					
Dysentery	2	A			D
Salmonellosis	2	A			D
Escherichiosis	1	A			D
Staphylococcal infection	2	A			D
Acute intestinal infections caused by opportunistic entire bacteria	2	A			
Viral diarrhea	2	A			
Dehydration syndrome	2	But		With	D
Pseudotuberculosis	1				
<b><i>Acute respiratory infections</i></b>					
Flu, neuro toxicities	2	A			D
Parainfluenza	2	A			D
Adenovirus, rhinovirus, MS infection, obstructive syndrome	2	But			D
Enterovirus infection	1	But			
<b><i>Acute viral hepatitis</i></b>					
Viral hepatitis with a fecal-oral transmission mechanism	2	But			D

Viral hepatitis with parenteral transmission mechanism	1				D
Heptode strophe. Differential diagnosis of hepatitis	2	But			
<b><i>Drip infections</i></b>					
Measles	2	But			D
Scarlet fever	2	But			D
Rubella	2	But			D
Chickenpox	2	But			D
Herpes infections	2	But			D
Whooping cough, par coccus	2	But			D
Mumps infection	2	But			D
Infectious mononucleosis	2				
Diphtheria	1				D
Meningococcal infection and other OBM's	1				D
Encephalitis primary, secondary	1				D
<b><i>Other infections</i></b>					
HIV infection in children	1				D
Opportunistic infections	1				
Polio	1				D
Helminthiasis	2	But	In		D
<b><u>4.4. SURGICAL DISEASES</u></b>					
<b><i>Sharp stomach</i></b>					
Acute appendicitis	1	But			
Perforated stomach ulcer	1	But			
Acute cholecystitis	1	But			D
Acute pancreatitis	1	But			D
Peritonitis	1	But			
Intestinal obstruction	1	But			
Hernia infringement	1	But		With	
<b><i>Vascular diseases</i></b>					
Acute arterial obstruction, embolism	1				
Thrombosis of the pulmonary artery, mesenteric vessels, and vessels of the extremities	1	But			
Obliterating endarteritis	1	But			
Varicose veins	1	But			
Phlebitis, thrombophlebitis	1	But			
<b><i>Purulent diseases, wound infection</i></b>					
A boil	2	But			
Carbuncle	2	But			
Abscess	2	But			
Philemon	1	But			
Lymphadenitis	1	But			

Panaretos	2	But			
Hidradenitis	2	But			
Sepsis	1				
Gangrene	1	But			
<b><i>Breast diseases</i></b>					
Mastitis	2	But			D
Mastopathy	1				
<b><i>Injuries</i></b>					
Bruises	2	But			
Wounds	2	But			
Fractures	2	But			
Dislocations	2	But			
Cracks	2	But			
Burns	2	But			
Benign neoplasms of the skin and subcutaneous tissue	1	But			
Ingrown toenail	2	But			
<b><i>Diseases of the rectum</i></b>					
Hemorrhoids	2	But			D
Anal fissure	2	But			D
Rectal prolapse	1	But			
Paraproctite	1	But			
Perirectal fistula	1	But			
<b><i>Congenital malformations</i></b>					
Hirschsprung's disease	1	But			
Dolichosigma	1	But			
Doubling the colon	1	But			
Rectal prolapse	1	But			
Phimosis, paraphimotic	1	But			
Cryptorchidism	1	But			
Osteochondropathies	1	But			
Congenital clubfoot	1	But			
Congenital hip dislocation	1	But			
Flat feet	1	But			
Muscular torticollis	1	But			
Scoliosis, kyphosis of the spine	1	But			
<b><i>Surgical diseases of the endocrine system in children</i></b>					
Diseases of the adrenal glands	1				

#### **4.5. DISEASES OF THE FEMALE GENITAL ORGANS AND**

## BREAST CANCER

### *Midwifery*

Pregnancy diagnosis	2	But		
Childbirth is physiological	2	But	With	
Postpartum period	2	But	In	
Pelvic presentation	1	But		
Multiple pregnancies	1			
Polyhydramnios, low water levels	1			
Spontaneous abortion (miscarriage)	2	But		
Preterm birth	2	But		
Ectopic pregnancy	1			
Diseases of internal organs that complicate the course of pregnancy	1			
Vomiting of pregnant women	2	But		
Preeclampsia and eclampsia	1	But	With	
Rh-is immunization	1	But		
Fetal hypoxia	1			
Gestational trophoblastic disease	1			
Placenta Previa	1	But		
Premature detachment of the normally located placenta	1	But		
Bleeding in the subsequent and early postpartum period	1	But		
Clinical narrow pelvis	1	But		
Ruptures of the vulva, vagina, and perineum	1	But		
Cervical rupture	1	But		
Uterine rupture	1	But		
Postpartum endometritis	1	But		
Nipple infection	2	But		
Breast abscess	1	But		
Non-purulent mastitis	2	But		
Stagnation in the mammary glands	2	But	In	
<b><i>Gynecology</i></b>				
Endometritis, salpinges prorates	1	But		
Infected abortion, community-based abortion	1	But		
Ovarian apoplexy	1			
Dysfunctional uterine bleeding	1			
Amenorrhea	1	But		
Premenstrual syndrome	2	But		
Hirsutism	1	But		
Infertility	1	But		
Menopausal syndrome	2	But		

Menopause	2	But			
Endometriosis	1	But			
Uterine fibroids	1	But			
Cervical erosion, polyp, dysplasia	1	But			
Mast dyne	1	But			
Hypo galactic	1	But			
Pediatic and adolescent gynecology	1	But			
Family planning	2	But			

#### **4.6. INFECTIOUS DISEASES**

<b><i>Intestinal infections and infestations</i></b>					
Typhoid fever	1	But			D
Para typhus	1	But			D
Food toxic infections	2	But			D
Salmonellosis	2	But			D
Dysentery	2	But			D
Cholera	1	But			D
Botulism	1	But			D
Enterovirus infection	2	But			D
Rotavirus infection	1	But			D
Yes semiosis	1	But			D
<b><i>Viral hepatitis</i></b>					
Viral hepatitis with a fecal-oral transmission mechanism	2	But			D
Viral hepatitis with parenteral transmission mechanism	1	But			D
<b><i>Helminthiasis</i></b>					
Nematodes	2	But			D
Trematodes	1	But			D
Custodies	2	But			D
Tissue worms	1	But			D
<b><i>Parasitic infections</i></b>					
Amie biases	2	But			D
Giardiasis	2	But			D
Balanitis diesis	1	But			D
Toxoplasmosis	1	But			D
Malaria	1	But			D
Leishmaniosis	1	But			D
<b><i>Airborne infections</i></b>					
Acute respiratory viral infections	2	But			D
Flu	2	But			D
Herpes infection	2	But			D

Cytomegalovirus infection	2	But			D
Infectious mononucleosis	2	But			
Natural smallpox	1	But			
Meningococcal infection	1	But			D
Angina	2	But			D
<b><i>Blood-borne infections</i></b>					
Epidemic typhus. Broil's disease	1	But			
Hemorrhagic fevers	1	But			
Seasonal encephalitis: tick-borne encephalitis	1	But	In		D
<b><i>Other infectious diseases</i></b>					
Tetanus	1	But			D
Erysipelas	2	But			D
Rabies	1	But			D
Anthrax	1	But			D
Brucellosis, zoonotic infections of chlamydial etiology	2	But			D
Leptospirosis	1	But			D
Pseudotuberculosis	1	But			D
HIV infection	1	But			D
The Plague	1	But			D
Tularemia	1	But			D

#### **4.7. TUBERCULOSIS**

Tuberculosis of the lungs and pleura	2	But			D
Extra pulmonary forms of tuberculosis	1	But			D
Tuberculosis in children	1	But			D
Complication after BCG vaccination in young children	2	But	In		D

#### **4.8. DISEASES OF THE NERVOUS SYSTEM**

<b><i>Vascular diseases of the brain</i></b>					
Transient cerebral circulatory disorders	1	But			
Ischemic strokes	1	But			
Hemorrhagic strokes	1	But			
Vertebra-basilar dyes circulation	1	But			
Senile brain degeneration	1	But			
Hypertensive encephalopathy	1	But			
<b><i>Diseases of the peripheral system</i></b>					
Neuritis	1	A			
Alcoholic polyneuropathy	1	A			D
Sciatica, sciatica	1	A			

Plexus's, natal plexus's	1	A		
Arch nudities	1			
Brain resurgence	2	A		
Diencephalic hypothalamic syndrome	1	A		
<b><i>Congenital diseases</i></b>				
Microcephaly	2	But		
Hydrocephalus	2	But		
Epilepsy, convulsive states	2	But		
Infantile cerebral palsy	1	But		
Multiple sclerosis	1	But		
Migraines	2	But		D

#### **4.9. MENTAL ILLNESSES**

Schizophrenia	1	But		
Neuroses	2	But		
Neurasthenia	1	But		D
Psychoses	1	But		
Depressions	2	But		D
Chronic alcoholism, drug addiction, substance abuse	1	But		D
Tobacco addiction	2	But		D
Psychosomatic diseases	2	But		
Sexy pathological disorders	1			
Psychopathy	1	But		

#### **4.10. SKIN AND VENEREAL DISEASES**

##### ***Non-communicable skin diseases***

Dermatitis	1	But		
Toxic derma	1	But		
Eczema	1	But		
Neuro dermatitis	1	But		
Erythema no do sum	1	But		
Psoriasis	1	But		
Lichen planus erythematosis	1	But		
Pink lichen	1	But		
Vitiligo	1	But		
Seborrhea	1	But		
Vulgar blackheads	2	But		D
Alopecia nesting	1	But		
Lupus erythematosus, scleroderma, dermatomyositis (skin manifestations)	1	But		
<b><i>Viral diseases</i></b>				

Warts	2	But		
Pointed Candlemas	2	But		
Pediculosis	2	But		D
Scabies	2	But		D
Fungal skin diseases	1	But		D
<b><i>Sexually transmitted diseases</i></b>				
Syphilis	1	But		
Gonorrhea	2	But		
Trichomonas's	1	But		
Urogenital chlamydia, micro plasmodia	1	But		
Soft chancre	1	But		
Ulcerative pyoderma	1	But		
Vulgar pemphigus	1	But		
Leprosy	1	But		

#### **4.11. DISEASES OF THE EAR, THROAT, AND NOSE**

Rhinitis	2	A		D
Sinusitis	2	A		D
Pharyngitis, laryngitis, trachealis	2	A		D
Sore throat, chronic tonsillitis	2	A		D
Upper respiratory tract polyposis	1	A		
External, otitis media	2	A		D
Foreign body of the external auditory canal, nasal cavity	1	A		
Sulfur plug	2	A		D
Hearing loss	1	A		

#### **4.12. EYE DISEASES**

Conjunctivitis	2	A		
Blepharitis	1	A		
Dacryoadenitis, dacryon cystitis	1	A		
Keratitis	1	A		
Barley	2	A		
Foreign body of the eye	2	A		
Glaucoma	1	A		
Myopia	1	A		
Hyper metopic	2	A		
Presbyopia	1	A		
Strabismus	1	A		
Cataract	1	A		

#### **4.13. DENTAL DISEASES**

Tooth decay	2	A		D
Para dentists	1	A		D
Gingivitis	1	A		D
Stomatitis	2	A		D
Gloss it	1	A		

#### **4.14. ONCOLOGICAL DISEASES**

Acute and chronic leukemia	1	A		D
Lymphogranulomatosis	1	A		
Lymph sarcoma, reticule sarcoma	1	A		
Myeloma disease	1	A		
Lung cancer	1	A		D
Esophageal cancer	1	A		D
Stomach cancer and other neoplasms	1	A		D
Tumors of the colon and small intestine	1	A		D
Rectal cancer	1	A		D
Cancer of the pancreas and Vater's nipple	1	A		D
Tumors of the gallbladder and biliary tract	1	A		D
Neoplasms of the liver, primary liver carcinoma	1	A		D
Thyroid cancer	1	A		D
Bone and soft tissue tumors	1	A		D
Breast cancer	1	A		D
Kidney neoplasms, kidney cancer	1	A		D
Adenoma, prostate cancer	1	A		D
Bladder cancer	1	A		D
Cancer of the cervix, vulva, uterine body, ovaries	1	A		D
Trophoblastic disease	1	A		D
Papilloma	1	A		D
Hepatoma	1	A		D
Basal cell carcinoma	1	A		D
Epithelium	1	A		D
Skin cancer	1			D
Melanoma	1	A		D
Cancer of the nasopharynx, larynx	1	A		D
Cancer of the lip, oral mucosa	1	A		D
Neuroblastoma, Wilms tumor, retinoblastoma, treat blastemal	1	A		D

#### 4.15. EMERGENCY CONDITIONS

Shock (anaphylactic, traumatic, hemorrhagic, etc.)	2	But		D
Fainting	2	But	With	D
Collapse	2	But	With	D
Coma (anemic, hypoglycemic, etc.)	2	But		D
Acute respiratory failure (in severe forms of airway obstruction, respiratory disorders syndrome in newborns)	2	But		D
Laryngeal edema, false croup	2	But		D
Asthmatic status	2	But		D
Angioedema	2	But	With	D
Open, closed, valvar pneumothorax	1	But		
Pulmonary embolism	1			
Acute heart failure (left ventricular, right ventricular, total)	2	But		
Cardiac rhythm and conduction disorders	2			
Hypertensive crisis	1	But		
Angina, myocardial infarction	1	But		
Hepatic colic	1	But		
Bleeding (arterial, venous, gastrointestinal, nasal, uterine, pulmonary, post-traumatic)	2	But	With	
Renal colic	2	But		
Acute urinary retention	2	But		
Phimosi s, paraphimotic	1	But		
Acute renal failure	1	But		
Acute liver failure	1	But		
Acute adrenal insufficiency, Addison's crisis	1	But		
Concussion, bruise, compression of the brain	1	But		
"Acute stomach" (appendicitis, ectopic pregnancy, ovarian apoplexy, pyro salpinx, pie varoom, cholecystitis, perforated gastric ulcer and duodenal ulcer, pinched hernia, pancreatitis, acute intestinal obstruction, pain syndrome in helminthiasis, perforation of the colon in necrotic ulcerative colitis, abdominal syndrome in hemorrhagic vasculitis; pain syndrome in pyelonephritis in children)	1	But		
Brain stroke, a dynamic disorder of the cerebral circulation	1	But		
Pulmonary edema	2	But		
Brain edema	1	But		
Convulsive conditions (hyperthermia, hypocalcemia seizures in children)	2	But	With	D
Epileptic status	2	But		D
Alcoholic delirium	1	But		D

Withdrawal symptoms	2				D
Psychomotor agitation	1	But			D
Acute glaucoma attack	1	But			
Chemical and thermal burns, frostbite	1	But			D
Electric shock, lightning, heat and sun damage	1	But			D
Poisoning cases	1	But			D
Drowning, suffocation	1	But			D
Thyrotoxicosis crisis	2	But			D
Preeclampsia, eclampsia	1	But			D
Bone fractures, dislocations, bruises, wounds, sprains	1	But			D
Clinical death	2	But	In	With	
Sudden death syndrome in children	2				
Excises in children, a salting form of adrenal genital syndrome	1	But			D
Edematous, edematous-ascetic syndrome	2	But		With	
Dyspnea-cyanotic attack in Fallout's disease in children	1	But			
Septicemia, septic copyedit	1	But			
Brain hemorrhages in newborns	1	But			
Hemolytic crisis, hyperbilirubinemia in neonatal hemolytic disease	1	But			
Hyperthermia in children	2	But			D
Severe anemia in children	1	But			D
Aplastic crisis in hypo-and aplastic anemia	1	But			

#### **4.16. PHARMACOTHERAPY**

<b>Theoretical foundations</b>	<i>Level</i>
<b><i>Individual variability and individualized treatment</i></b>	
Basic pharmacological concepts: drug safety, drug efficacy, therapeutic index	1
Adult pharmacokinetic parameters, saturation dose and maintenance dose under normal conditions	2
Methods of administration of medicinal substances and forms of medicinal substances	2
Prescribing medications during pregnancy and lactation (safe medications for the treatment of common diseases, the risk associated with taking medications)	2
Prescribing medications to infants	2
Principles of prescribing medicines to children, with the calculation of dosage based on body weight, body surface area	2
Administration of medicines to the elderly (pharmacokinetics, pharmacodynamics and dosage principles)	2

Drug interactions (fundamentals of pharmacodynamics and pharmacokinetics, basic drug interactions)	2
Influence of gender, diet, smoking, alcohol, internal and external factors on drug metabolism	1
Administration of drugs for renal diseases (changes in pharmacokinetics, dosage, features of administration depending on creative clearance)	2
Prescribing medications for liver diseases (changes in pharmacokinetics and pharmacodynamics, contraindicated medications, hepatotoxic drugs, calculation of the initial and maintenance dose based on hepatic clearance)	2
Administration of drugs for heart failure (changes in pharmacokinetics and pharmacodynamics, optimal routes of administration of drugs, drugs contraindicated in cardiovascular diseases, cardio toxic drugs, adaptation of the initial and maintenance dose in heart failure)	2
<b><i>Drug safety, prevention and diagnosis of adverse reactions</i></b>	
Side effects (frequency. Classification, detection and prevention, risk factors, drug allergy, drug toxicity, the role of toxic drug metabolites, patient education).	2
The main antidotes for drug poisoning	2
Measures for drug poisoning and measures aimed at enhancing the elimination of medicinal substances	2
Common drug poisonings (sedatives, antidepressants, opiates, opioid substances, paracetamol, aspirin)	2
<b><i>Principles of pharmacotherapy</i></b>	
Placebo effect (mechanism, role in clinical trials)	1
Reimbursement of the cost of medicines (List of vital medicines, State Guarantee Program, Additional package)	2
Evidence-based medicine. Basic concepts of evidence-based medicine	1
Sources of information on evidence-based drug therapy. Levels of evidence	1
<b><u>4.17. MEDICAL RADIOLOGY</u></b>	
<b>Theoretical foundations</b>	<b>Level</b>
<b><i>Principles of radiation oncology</i></b>	
Tumor formation, tumor classification and principles TNM	1
Methods of radio oncology	1
Therapy in radio oncology	1
<b><i>Computed tomography (CT) scan</i></b>	
Technical parameters of CT: detector, image formation, gain, Hounsfield scale	
Indications for CT scan	
<b><i>Ultrasound examination (ULTRASOUND)</i></b>	

Technical parameters of ultrasound: image formation, Doppler effect	1
Advantages and disadvantages of ultrasound in comparison with other methods of image reproduction	2
<b><i>Magnetic resonance imaging</i></b>	
Technical parameters of MRI: magnetism, radio frequency, relaxation time, signal characteristics of tissues	1
Indications and contraindications, safety measures for MRI examination	2
<b><i>Contrast agents</i></b>	
Contrast agents: types, indications, contraindications	1
Contrast agents: adverse reactions, prevention, treatment	2
<b><i>Interpretation of the results of X-ray examinations of various organs and systems</i></b>	
X-ray examination for lung damage: alveolar induration, interstitial diseases, nodules, bulky formations in the lungs	2
X-ray examination for pleural, mediastinal, and thoracic lesions	2
X-ray examination for bone and joint damage: osteoporosis, bone metastases, ostia malaria, pseudo arthritis, deforming osteoarthritis, narrowing of the joint gap	2
X-ray examination for limb fractures: clavicle, shoulder, numerus, radius, ulna, hand (distal radius), fingers, femur, knee, tibia and fibula, fingers	2
X-ray examination of spinal injuries: compression fractures, scoliosis, kyphosis	2
<b><u>4.18. PUBLIC HEALTH AND HEALTHCARE</u></b>	
<b>Theoretical foundations</b>	<b>Level</b>
<b><i>Basic terms and concepts in public health and healthcare</i></b>	
Key terms and concepts in public health and healthcare: health and disease, pathogenesis, etiology, individual and public health, public health, preventive medicine, health service, health promotion, lifestyle	1
The concept of primary, secondary and tertiary prevention	2
<b><i>Biostatistics</i></b>	
Theoretical foundations of biostatistics (probability theory, the law of large numbers)	1
Organization of statistical research. Statistical methods of research processing. Methods for calculating relative quantities (The concept of relative quantities, types of relative quantities-extensive, intensive, ratios, values, their definition, calculation methods, scope and characteristics)	1
Methods for calculating average values. Variation series, types of variation series; values of the variation series (mode, median, arithmetic mean, mean square deviation, coefficient of variation, limit, amplitude)	1
Methods for evaluating reliability in statistics. General provisions on	1

parametric and nonparametric methods for evaluating the reliability of results	
Correlation coefficient and its estimation. Parametric and nonparametric methods for calculating the correlation coefficient, their significance and practical application. Standardization method	1
Dynamic series. Dynamic series indicators, their calculation and practical application	1
Graphical representation in statistics and their use for analyzing phenomena	1
<b><i>Demographic indicators and data sources</i></b>	
Population statistics. Population censuses as a source of information on population statistics. Types of age and gender structure of the population. Population dynamics and its types	1
Birth rate and fertility (fecundity)	1
Population mortality rate. Infant and perinatal mortality, their main causes	1
Life expectancy at birth and average life expectancy to come	2
Natural population growth, factors influencing it	2
Morbidity rate	2
Disability status	2
<b><i>Healthcare system of the Kyrgyz Republic</i></b>	
Organization of medical and preventive care for the population of the Republic	1
Primary health care	2
Organization of inpatient care	2
Alternative types of inpatient care	2
Emergency medical care	2
Organization of the sanitary and epidemiological service	2
Organization of health resort assistance	2
Training of medical personnel	2
<b><i>Prevention and health promotion</i></b>	
Public health. WHO Global Health Policy for All in the 21st Century»	1
Healthy lifestyle. Social mobilization, social marketing for health promotion	2
Conducting educational programs for patients	2
Protecting and promoting the health of children and young people	2
Protecting and promoting women's health	2
Protecting and promoting the health of older people	2
The role of the Health Promotion Service in shaping the healthy lifestyle of the population	2
<b><i>Chronic and disabling diseases, accidents</i></b>	
International data, international strategies for the prevention of	2

cardiovascular diseases, diabetes, cancer, musculoskeletal diseases, respiratory diseases, allergies, mental illnesses, drug addiction, accidents	
<b><i>International health care</i></b>	
World Health Organization: WHO strategies, PAL, DOTS	1
The main causes of morbidity and mortality in children and adults in different parts of the world	1
<b><i>Health insurance</i></b>	
Legal framework for health insurance	1
Types and principles of health insurance	1
Organization of health insurance: subjects (direct, indirect), their rights and obligations, interaction on the basis of contractual relations	2
<b><u>4.19. FORENSIC MEDICINE</u></b>	
	<b>Level</b>
Forensic thanatology. Dying and dying. Cadaveric changes.	I
Procedural and methodological bases for examining the scene of an accident.	I
Forensic injuries. Damage description algorithm. Methods of proving torture.	I
Forensic medical examination of various types of gunshot injuries.	I
Forensic medical examination of auto injuries and falls from heights.	I
Mechanical asphyxia. Damage caused by high and low temperatures and other physical factors. Positional asphyxia. Forensic medical examination of stun gun injuries.	I
Forensic medical examination of the degree of harm to health. Principles and criteria for determining the degree of harm to health.	I
Forensic medical examination of offenses committed by medical workers in their professional activities.	I
Forensic medical examination of nonviolent death (sudden death).	I
Forensic medical examination of the corpse of newborns.	I
Forensic medical examination of fatal and non-fatal poisonings.	I
Examination of personal identification.	I
Forensic medical examination of physical evidence.	I
Forensic medical examination of the maxillofacial region.	I
Forensic age determination.	I
Forensic medical examination of sexual conditions and sexual crimes.	I
<b><u>4.20. MEDICAL REHABILITATION</u></b>	
<b>Theoretical foundations</b>	<b>level</b>
<b><i>Fundamentals of physical treatment methods used in the rehabilitation of sick adults and children</i></b>	
Basic terms and concepts in medical rehabilitation: general physical therapy, medical supervision, sports medicine, physical therapy, spa	1

treatment	
<b><i>General physical therapy</i></b>	
Physiotherapy as a medical specialty and the science of using natural and preformed physical factors in the treatment and rehabilitation of sick adults and children	1
spa therapy. Clime therapy. Medical characteristics of the climate of the main natural zones. Aero therapy, heliotherapy. Thalassotherapy. Alpine clime therapy. Resorts of Kyrgyzstan, indications and contraindications to the appointment.	1
<b><i>Medical supervision and physical therapy in rehabilitation of sick adults and children</i></b>	
Medical control in physical culture and sports classes, basic concepts, forms, goals, tasks, anthropometry, functional tests, medical report, medical groups	1
Medical and pedagogical observations, goals, tasks, forms. Medical support for training camps and competitions.	1
Fundamentals of physical therapy, general characteristics of the method of physical therapy, clinical and functional justification of the therapeutic use of physical exercises.	1
Means, forms and methods of therapeutic physical culture as the basis of medical rehabilitation	1
Rehabilitation of patients with diseases of the cardiovascular system on an outpatient basis	2
Rehabilitation of patients with respiratory diseases on an outpatient basis	2
Rehabilitation of patients with diseases of the digestive system on an outpatient basis	2
Rehabilitation of patients with diseases and injuries of the central and peripheral nervous system on an outpatient basis	2
Rehabilitation of patients with injuries of the musculoskeletal system on an outpatient basis	2
Physical therapy in obstetrics and gynecology on an outpatient basis	2
Rehabilitation of patients after surgical operations. Indications and contraindications	2

<b><u>MEDICAL ECOLOGY</u></b>	
Medical ecology, its goals and objectives.	1
Habitat as a cause of human diseases.	1
Human ecology.	1
Pathogen etic mechanisms of action of biological factors on the human body.	1
Pathogen etic mechanisms of action of chemical and biological factors on the human body	1

Pathogen etic mechanisms of action of physical factors on the body.	1
Xenobiotic detoxification.	1
Environment and heredity.	1
Ecological and medical characteristics of the atmosphere.	1
Ecological and medical characteristics of the hydrosphere.	1
Ecological and medical characteristics of the lithosphere.	1
Ecological and medical characteristics of nutrition.	1
Environmental monitoring.	1
Assessment of the risk of exposure to environmental factors on human health.	1

<b><u>OCCUPATIONAL DISEASES</u></b>	<b>Level</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Occupational diseases of the lungs.	2	A			D
Professional intoxication.	2	A			D
Occupational diseases caused by physical factors.	2	A			D
Occupational diseases of the musculoskeletal system.	2	A			D
Principles of prevention of occupational diseases.	2	A			D
Issues of examination of working capacity in occupational diseases.	2	A			D

<b><u>MICROBIOLOGY</u></b>	
<b>THEORETICAL FOUNDATIONS</b>	<b>LEVEL</b>
<i>General part</i>	
Morphology and biology of bacterial cells	
Morphology, classification, and periods of viruses	
Morphology of fungi. Antibiotics, sources and methods of preparation	
Microflora of air, water, and soil	
Microflora of the human body	
The concept of infection and the infectious process. Basic protection mechanisms.	
Immunity, types and forms of immunity, non-specific factors of body protection	
Specific forms of immune response	
Antigens their properties, antibody characteristics, structure and functions	
Regulation of the immune response. Diagnostic reactions and methods	

Immune biological preparations	
Allergies. Hypersensitivity I, II, III.IV types	
The concept of clinical immunology. Immunology. Immunological insufficiency. Autoimmune diseases. Transplantation.	
Human immunological examination. Tests and staging methods	
Morphology, cultural virulent, antigenic properties and epidemiological features of pathogens of purulent inflammatory processes.	
<p>Morphology, cultural virulence, antigenic properties and epidemiological features of pathogens:</p> <ul style="list-style-type: none"> <li>- purulent inflammatory processes (streptococci and staphylococci)</li> <li>- meningococcal and gonococcal infections, non-gonorrheal urethritis</li> <li>- diphtheria, pertussis, par coccus</li> <li>- tuberculosis, leprosy</li> <li>- intestinal infections. E. coli</li> <li>- typhoid fever, paratyphoid Ai B</li> <li>- salmonellosis</li> <li>- cholera</li> <li>- gas gangrene, tetanus, botulism</li> <li>- plague and tularemia, anthrax, brucellosis</li> <li>- syphilis and recurrent typhoid, leptospirosis</li> <li>- typhus and Ku-fever</li> <li>- mycoses and candidiasis</li> <li>- influenza virus, acute respiratory infections</li> <li>- enteroviruses, pathogens of poliomyelitis</li> <li>- viral hepatitis A, B, C, E, D</li> <li>- HIV</li> <li>- arboviruses, oncogenic viruses</li> <li>- measles and rubella viruses</li> <li>- Rabies virus</li> </ul>	
<b><i>Sanitary microbiology</i></b>	
Sanitary microbiology its goals and objectives	

Pathogenic microflora of air, water, soil, and food products. Sanitary and epidemiological significance	
Microbial contamination of equipment and objects in health care facilities and children's institutions, in food processing units, at food industry enterprises and methods of its control.	
Microbiological diagnostics of microbial food poisoning	

<b>BIOETHICS</b>	
<b>THEORETICAL FOUNDATIONS</b>	<b>LEVEL</b>
History of biomedical ethics	
Theoretical foundations of biomedical ethics	
Basic rules and principles of bioethics	
Ethical documents of professional medical associations	
Rights and moral obligations of a doctor	
Patient rights	
Moral rights of extraprofessional relationships	
Ethical principles of conducting an animal experiment	
The essence of moral problems of human organ and tissue transplantation	
The essence of ethical issues related to infectious diseases and AIDS	
Features of moral and ethical relations in psychiatry	
Moral foundations of entrepreneurial activity	

## CHAPTER 5. MEDICAL SKILLS AND MANIPULATIONS

<b>Competencies</b>	<b>Level</b>
<b>5.1. Questioning the patient. Collecting anamnesis</b>	
Collection of basic and additional complaints, assessment of the patient's perception of his / her problems	2
Assessment of the patient's socio-economic status and cultural characteristics	1
Purposeful collection of medical history of the disease (asking about the history of this disease): the beginning of the disease, the time of occurrence and dynamics of symptoms; ability to build a history of the disease in chronological order from the first symptoms to the moment of contacting a doctor; the reason for contacting a doctor	2
Collecting a life history (general information about the patient's life)	2
Collecting an allergic medical history	2
Collecting a third-person medical history	2
Understanding and responding to nonverbal signs	1
Collecting a psychiatric history	1

Communication and collection of medical history from a seriously ill or dying patient	1
Communication and history collection in a speech-deficient patient	1
Collecting a professional medical history	1
Identification of harmful risk factors associated with the patient's behavior (smoking, low-activity lifestyle, dietary errors, hygiene habits, etc.)	2
Collecting a drug history	1
<b>5.2. Physical examination</b>	
Assessment of the general condition of the patient (appearance, position, nutrition, consciousness, mental state)	2
Assessment of vital functions of the body (body temperature, respiratory rate and type, pulse rate, arterial and venous pressure)	2
Assessment of patients with emergency conditions and injuries	2
Documentation of anthropometric data (height, weight, BMI, head circumference, waist, hip)	2
Examination of the skin and mucous membranes (signs of anemia, cyanosis, jaundice, edema, dehydration)	2
Examination (forensic examination) of a patient under the influence of alcohol or a psychotic substance	2
Clinical diagnosis of death	2
Assessment of the time of death (cadaveric spots, rigor mortis, rectal temperature)	2
Examination of the lymph nodes	2
Detailed description of the skin lesion	2
Description of nails, scalp, and visible mucous membranes	2
Definition of demography	2
Description of eye lids and eyelashes	2
Description of the upper eyelid with an eversion of the eyelid	1
Description of the width of the eye slit	1
Description of the conjunctiva, including the arch	1
Description of the sclera and cornea during the fluorescein test	1
Determining the sensitivity of the cornea to touch	1
Description of the pupil, light response, and convergence	1
Description of the iris	1
Definition and description of nystagmus	1
Description of eye position and movement (corneal reflex)	1
Examination and palpation of the auricle and surrounding area (mastoid area)	2
Examination and palpation of the nose and face	2
Nasal obstruction assessment and anterior rhinoscopy	2
Examination of the lips, oral region, oropharynx, as well as teeth,	1

tongue, tongue root, pharyngeal arches, tonsils, examination of the excretory ducts of the parotid glands and submandibular glands	
Palpation of the bottom of the mouth, cheeks, tonsils and tongue root	2
Examination and palpation of the parotid and submandibular glands	1
Voice and speech assessment, detection of aphasia	2
External examination and palpation of the larynx	2
Examination, palpation and auscultation of the neck, thyroid, carotid arteries and lymph nodes	1
Palpation of the head and cervical spine, examination of pain under pressure and / or percussion	1
Examination of bones, joints and muscles of the shoulder girdle	1
Determination of the size of the chest excursion – examination, palpation, measurement of the chest circumference	2
Placatory detection of voice tremor	1
Percussion of the lungs, determination of excursion of the lower edge of the lungs	2
Auscultation of the lungs	2
Definition of the apical push (heart)	2
Defining the boundaries of cardiac dullness	2
Auscultation of the heart	2
Determination of peripheral vascular pulsation	2
Examination and palpation of mammary glands, including regional lymph nodes	2
Abdominal examination	2
Auscultation of the abdominal cavity (intestinal murmurs)	2
Abdominal percussion (determining the size of the liver, spleen)	2
Palpation of the abdomen (abdominal wall, intestines, liver, spleen, abdominal aorta, kidneys, pancreas)	2
Detection of abdominal soreness, peritoneal irritation symptom, muscle protection	2
Definition of " splash noise»	2
Determination of pain in the kidney area	2
Examination of inguinal hernia by examination and palpation of the hernia gate	1
External examination and palpation of the perianal area	1
Rectal examination in men (anal opening, rectum, prostate gland, sacral spine)	1
Examination and palpation of the penis and scrotum (testicles, testicular appendages, spermatic cord)	1
Examination and palpation of female external genitalia (vulva, perineum)	1
Examination of the spine, spinal mobility, paravertebral muscles in	1

standing and lying on the back (kyphosis, scoliosis, Schober test)	
Palpation, percussion, determination of spine soreness	1
Examination of the ileocecal joints and pelvis (determination of mobility, soreness, atrophy)	1
Examination of the shape, function, mobility and soreness of the upper extremities (wrist and elbow joints, finger joints, etc.)	1
Study of the shape, function, mobility and soreness of the lower extremities (ankle and knee joints, position, function, patella relief)	1
Examination of the lower limb axis (hallux valgus and Varus deformity of the knee joints)	2
Study of the foot axis (hallux valgus and Varus deformity of the feet)	2
Capillary pulse examination	2
Determination of arterial insufficiency, Mashkovich's method	1
Study of varicose veins	2
Assessment of neuropsychiatric development of children	2
Determination of tendon reflexes (triceps, biceps, knee, elbow) and plantar reflex	2
Study of cranial nerve function	1
Study of passive muscle movements, examination of muscle mass, study of muscle tone, muscle strength, involuntary movements, determination of contracture, atrophy	2
Definition of complex reflexes: abdominal, anal, mandibular, proboscis, prehensile	2
Gait examination (normal gait, on toes, with a limp to one side)	2
Coordination study (finger to nose, heel to shin, heel to nose, dido chunkiness)	2
The Romberg, Unterberg Test	2
Study of tactile and pain sensitivity	2
Determination of meningeal symptoms	2
Investigation of radicular cervical and lumbar symptoms	1
Assessment of the degree of impaired consciousness	2
Study of orientation in space and time	2
Memory Research	1
5.3. General skills	
Examination of a pregnant woman's abdomen	2
All types of injections, including intravenous drip fluids	2
Interpretation of the results of intradermal diagnostic (Monteux test) and allegro logical tests	2
Determination of blood suitability for transfusion, blood transfusion (direct transfusion of donor blood, single and repeated replacement blood transfusion), administration of sera	2
Determination of blood type and Rh- determination by express	2

method, determination of individual and biological compatibility of blood	
Drip and jet transfusion of medicines and blood substitutes	2
Conducting and decoding an ECG	2
Interpretation of radiographic examination results	2
Performing and interpreting peak flowmeter	2
Interpretation of spirometry results	2
Interpretation of a blood test for hemoglobin, leukocytosis, ESR (general blood test)	2
Technique of urine collection for laboratory tests in children of all age groups and adults (measurement of diuresis, general urinalysis, Nechiporenko, Addis-Kakovsky, Zimnitsky tests)	2
Taking feces for coprological and bacterial examination in children	2
Obtaining smears, material for cytological and bacteriological examination (from the pharynx, nose, urethra, vagina, umbilical wound)	2
Gastric and intestinal lavage	2
Feeding heavy and premature babies through a probe	1
Therapeutic and hygienic baths	2
Treatment of the oral mucosa in children	2
Temperature measurement in children	2
Anthropometric measurements in children	2
Counting of pulse and respiration in children	2
Cardiovascular tests (Shalkov test) , measurement of blood pressure in children	2
Massage and gymnastics for newborns and infants	2
Evaluation of stool in infants	2
Cleansing, siphon and therapeutic enemas for children	2
Instilling medication in the eyes, nose, and ears of children and adults	2
Taking a pharyngeal swab	2
Applying a blindfold	1
Applying eye ointment	2
Ear washing	1
Applying proper hand washing techniques in the workplace	2
Preoperative preparation of the surgical field for minor surgical interventions, asepsis and antiseptics	2
Preparing for surgery (washing your hands before surgery, putting on a sterile operating uniform, putting on sterile gloves)	2
Removal of surgical sutures	2
Venipuncture	2
Use and explain to the patient the technique of using a metered-dose	2

inhibitor, spacer and nebulizer	
<b>5.4. Manipulations for emergency care</b>	
Clamping of the umbilical cord/separation of the placenta from the baby	2
Evaluation of fetal heartbeat during pregnancy	2
Cardiopulmonary resuscitation (basic algorithm of cardiac resuscitation, on a dummy)	2
Research and first aid for external injuries (wounds, bleeding, burns, sprains, dislocations, fractures)	2
Transporting a patient with an injury	2
Stopping bleeding (compression, applying a tight bandage, applying a tourniquet)	2
Artificial respiration "mouth to mouth", " mouth to nose»	2
Methods of cleaning the upper respiratory tract, aspiration of mucus from the upper respiratory tract	2
Indirect heart massage	2
Defibrillation	2
Trachea-or conic tummy, tracheostomy	1
Use of the children's oxygen tent	2
<b>5.5. Surgical procedures</b>	
Implementation of infiltrative local anesthesia, conduction, regional vagosympathetic blockades	1
Primary surgical treatment of wounds, removal of sutures	2
Suturing the skin	2
Treatment of burn surfaces and infected wounds	2
Bandages, applying soft bandages, splints	2
Reduction of dislocations	1
Transport and therapeutic immobilization for fractures of the bones of the extremities, spine	2
Removal of superficially located foreign bodies	1
Opening of abscesses, panaritium, phlegm on	2
<b>5.6. Otolaryngological manipulations</b>	
Stopping nosebleeds: anterior nasal tamponade	2
posterior nasal tamponade	1
Probing and washing of tonsil lacunae	1
Autopsy of a par tonsillar abscess	1
Introduction of drugs into the larynx and bronchi with a laryngeal syringe and through a nasal catheter	1
Research of hearing by whispering speech, colloquial speech, tuning fork	2
<b>5.7. Ophthalmic manipulations</b>	

Determination of visual acuity and definition of visual field boundaries	2
Optical vision correction with trial eyeglass lenses	1
Description of the lens, anterior chamber, and ocular media (translucency)	1
Assessment of intraocular pressure by palpation	1
Visual acuity assessment and definition of visual field boundaries	2
Color vision assessment using tables	1
<b>5.8. Skills and manipulations used in obstetrics and pediatrics</b>	
Pregnancy diagnosis	2
Taking swabs for flora from the vagina, cervical canal and urethra	2
External obstetric examination, evaluation of fetal heartbeat	2
Management of physiological labor	1
Assessment of the placenta status	2
Assessment of the newborn's condition	2
Conducting the primary toilet of a newborn	2
Treatment of the umbilical cord and umbilical wound	2
Assessment of newborn reflexes assessment of psychomotor and physical development of the child	2
Getting vaccinated	2