

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

PENZA STATE UNIVERSITY

MEDICAL INSTITUTE



APPROVED
Director of Medical Institute
A.N. Mitroshin
МАРТА 20 16

WORKING PROGRAM OF DISCIPLINE

C1.1.24 Hygiene

Specialty: 31.05.03 Stomatology

Qualification (degree) of the graduate: dentist

Type of study: full-time

Penza, 2016

1. Subject mastering goals

The purpose of mastering the discipline "Hygiene" is the formation of readiness to implement a set of measures of primary and secondary prevention in the practical activities of the dentist, with the goal of strengthening people's health.

The tasks of studying hygiene are: mastering the theoretical foundations of discipline for a proper understanding of the interaction of environmental factors and the human body in the conditions of professional activity and the population's living; mastering the methods of sanitary and hygienic research to obtain objective information about the living conditions of the population and the professional activities of individual professional groups; acquisition of skills of preventive and current sanitary supervision at various sites; hygienic education and the formation of a healthy lifestyle

2. The place of discipline in the structure of the specialty

The discipline "Hygiene" is included in the basic part of the C1 block of the discipline.

Hygiene is one of the basic disciplines that is interconnected with disciplines: jurisprudence, biology, chemistry, biochemistry, anatomy, physiology, microbiology, virology.

Competences acquired during studying hygiene prepare students for further development of professional competence and performance of professional duties.

3. Student competences developed as a result of subject mastering Hygiene

Studying of the subject is intended to develop elements of the following competences according to FSESHE in the given field:

Competence code	Title of competence	Structural elements of competence (having mastered the subject students should have knowledge, skills, working abilities)
1	2	3
SPC-1	be able to perform the scope of measures aimed at protecting and promoting the health and safety of the public, including fostering healthy lifestyle, prevention of the diseases and their treatment, early diagnostic of medical conditions, their causes and conditions of their development, elimination of harmful environmental factors	<p>Knowledge:</p> <ul style="list-style-type: none"> – principles and measures of preventive medicine; – organization of preventive measures; – the basis of interaction between the body and the environment; – the role of hygiene in the scientific development of the problem of promoting health, improving efficiency; – hygienic characteristics of environmental factors, mechanisms of action on the body; – basics of evidence-based medicine in establishing the effect of environmental factors; – hygienic aspects of nutrition; – methods of health education. <p>Skills:</p> <ul style="list-style-type: none"> – assess the likelihood of adverse effects on the body of environmental factors; – participate in the organization and provision of preventive, sanitary and anti-epidemic, medical and rehabilitation assistance to the population. <p>Working abilities:</p> <ul style="list-style-type: none"> – interpretation of the results of a laboratory study of the microclimate of living quarters, educational institutions and medical institutions; – interpretation of the results of a laboratory study of water, food, evaluation of their suitability for use; – methods of assessing the individual and organized

		<p>nutrition of the population, food status;</p> <ul style="list-style-type: none"> – methods of assessing the health status of the population of different age and sex groups.
SPC-4	<p>be ready to apply methods of public health monitoring and methods of medical statistical analysis of public health data</p>	<p>Knowledge:</p> <ul style="list-style-type: none"> – methods of research of public health with the purpose of its preservation, strengthening and restoration; – methods of studying the influence of environmental factors on public health; – forms and methods of organization of hygienic education and education of the population; – principles for the development of prevention programs; – features of primary, secondary prevention. <p>Skills:</p> <ul style="list-style-type: none"> – use information on public health in the activities of medical organizations; – analyze information on public health; – make a list of activities that improve the quality and effectiveness of preventive care for the population. <p>Working abilities:</p> <ul style="list-style-type: none"> – method of research of public health with the purpose of its preservation, strengthening and restoration; – method of determining the impact of environmental factors on public health; – methods of organization of hygienic education and education of the population; – method of formation and implementation of preventive programs.
SPC-12	<p>be able to teach the patients and their families necessary hygiene, health monitoring and healthcare measures that contribute to the prevention of dental diseases and improving the general health</p>	<p>Knowledge:</p> <p>principles and measures of preventive medicine;</p> <p>Skills:</p> <p>to conduct with patients and their relatives preventive measures to increase the resistance of the organism to unfavorable environmental factors using various methods of hardening; promote a healthy lifestyle;</p> <p>Working abilities:</p> <p>methods of organizing primary prevention of dental diseases in any age group.</p>

4. Structure and contents of subject Hygiene

4.1. Subject's structure

General work load of the subject totals 3 credit units, 108 hours.

№	Subject's (module's) sections and topics	Semester	Semester's weeks	Types of learning, including students' out-of-class work and workload (in hours)									Current progress monitoring types (by semester's weeks)							
				Work in class				Out-of-class work					Interview	Spoken test	Test marking	Check work marking	Paper marking	Marking of essays and other creative works	Course work (project)	Skill check
				Total	Lecture	Practice	Laboratory work	Total	Preparing for class work	Papers, essays etc.	Course work (project)	Preparing for exams								
1.	Section 1. Introduction to the discipline. History of the development of hygiene, ecology	4		4	2	2		1	1											
1.1.	Topic 1.1. Introduction to the discipline.	4			2															
1.2.	Topic 1.2. History of the development of hygiene, ecology	4	1			2		1	1			1		1		1				
2.	Section 2. Hygiene of air environment.	4			2	6		3	2	1										
2.1.	Topic 2.1. Hygiene of air environment	4	2			2		0,5	0,5			2		2						
2.2.	Topic 2.2. Solar radiation	4			2			1		1						2				
2.3.	Topic 2.3. Hygienic value of the main parameters of the environment	4	2			2		0,5	0,5			2		2						
2.4.	Topic 2.4. Methods of study of the main parameters of the environment	4	3			2		1	1			3		3						
3.	Section 3. Water hygiene and water supply of populated area	4			2	12		6	4	2										
3.1.	Topic 3.1. Assessment of the quality of drinking water	4	4		2	2		2,5	0,5	2		4		4		4			4	
3.2.	Topic 3.2. Methods to improve the quality of	4	4			2		0,5	0,5			4		4						

	drinking water																		
3.3.	Topic 3.3. Chemical significance of water	4	5			2		0,5	0,5				5	5					
3.4.	Topic 3.4. Epidemic significance of water	4	6			2		0,5	0,5				6	6					
3.5.	Topic 3.5. Seminar (interim assessment)	4	6,7			4		2	2				6 7	6 7					
4.	Section 4. Soil and sanitation of populated areas	4				2		2		2									
4.1.	Topic 4.1. Hygiene of soil	4	8			2		2		2						7			7
5.	Section 5. Nutrition and human health	4				2	14	10	10										
5.1.	Topic 5.1. The base of nutrition hygiene. . Methods of nutrition studying	4	9			2	2	2	2				8	8					
5.2.	Topic 5.2. Order of sanitary and hygienic examination of foodstuff	4	9			2		1	1				9	9					
5.3.	Topic 5.3. Therapeutic and preventive nutrition. Clinical nutrition.	4	10			2		1	1				9	9		9			
5.4.	Topic 5.4. Hygienic requirements to the organization of work of catering department of medical institution	4	11			2		1	1				9	9					
5.5.	Topic 5.5. Food poisonings and their prophylaxis	4	11			2		1	1				10	10					
5.6	Topic 5.6. Seminar	4	12 13			4		4	4				11	11					11
6.	Section 6. Occupational hygiene		9	2		2		0,5	0,5				9	9					
6.1.	Topic 6.1. Basic physiology of labor. Changes in the human body in the course of employment Occupational exposures and poisonings diseases	4	9	2		2		0,5	0,5				9	9					
6.2.	Topic 6.2. Prevention of occupational diseases of medical personnel	4	10	2		2		0,5	0,5				10	10					
6.3.	Topic 6.2. Hygienic requirements to the device and operation of X-ray apparatus and carrying out X-ray inspections	4	11	2		2		0,5	0,5				11	11			11		11
7.	Section 7. Hygiene of children and adolescents	4	11	2		2		0,5	0,5				11	11			11		11
7.1.	Topic 7.1. Sanitary and epidemiological requirements for the design, content of the work of pre-school educational institutions	4	12	2		2		0,5	0,5				12	12			12		12
7.2.	Topic 7.2. Hygienic requirements to training conditions in educational institutions	4	13	2		2		0,5	0,5				13	13					
8.	Section 8. Hygiene of treatment and prevention facilities	4	13	2		2		0,5	0,5				13				13		13
8.1.	Topic 8.1. General principles of planning of treatment and prevention facilities	4	14	2		2		1	1				14				14		14

8.2.	Topic 8.2. Planning and an operating mode in infectious unit of hospital	4	15	2		2		1	1				15		15			15		15
8.3.	Topic 8.3. Hygienic aspects of prophylaxis of intrahospital infections	4	15			2		0,5	0,5				15		15					
8.4.	Topic 8.4. Sanitary and epidemiologic demands to out-patient and polyclinic stomatologic institutions	4		2	2															
8.5.	Topic 8.5. Sanitary and epidemiologic demands to stationary stomatologic institutions	4	16	4	2	2		0,5	0,5				16		16					
8.6	Offset	4	17	2		2		2	2				17		17					17
	General workload, in hours			72	18	54		36	31	5			Interim attestation							
													Type				Semester			
													Pre-fail exam				4			
													Exam							

4.2. Subject's contents

Section 1. Introduction to discipline. History of development of hygiene, bionomics

Topic 1.1. Introduction to discipline

Subject and content of hygiene. Communication of hygiene with other sciences. Value of hygienic actions in activity of the attending physician. A concept about primary and secondary prophylaxis of diseases. Communication and interaction of preventive and medical medicine. Methods of hygienic researches: sanitary, statistical and epidemiological analysis of state of environment and health of the population.

Structure, kinds of activity and tasks of sanitary and epidemiologic service. Sanitary legislation. Law "About Sanitary and Epidemiologic Wellbeing of the Population".

History of a becoming and development of hygiene.

Hygiene in a classical antiquity (Hippocrates), in the early Middle Ages and in Renaissance. Formation and development of experimental and scientific hygiene (M. Pettenkofer). Founders of domestic hygienic science (A.P. Dobroslavin, F.F. Erisman, etc.). Founders of domestic medicine: M.Ya. Mudrov, N.I. Pirogov, S.P. Botkin, G.A. Zakharyin, A.A. Ostroumov - active supporters of the preventive direction in medicine.

Contribution of scientists and organizers of health care to formation and development of hygienic science and sanitary matter in Russia (N.A. Xie-mashko, Z.P. Solovyov, G.V. Hlopin, A.N. Sysin, A.N. Marzeev, N.K. Ignatov, F.G. Krotkov, A.A. Minkh, etc.).

Hygiene problems in the conditions of scientific and technical progress. The main research establishments, their role in development of hygienic science and in the international cooperation in this area.

Topic 1.2. History of development of hygiene.

Environment as combination of natural, anthropogenic and social factors. Material and psychogenic (informative) factors of medium. A concept about the biosphere and its components.

Hygienic problems in a bionomics. A concept about a bionomics, fundamental laws of a bionomics. The reasons of ecological crisis and its distinctive features in modern conditions.

Ecological factors and health of the population.

Concept about ecologically caused population diseases. Problems of hygienic science and sanitary practice in management of The Person — the Environment system.

Pollution and protection of atmospheric air, the soil and water as an environmental problem in the conditions of scientific and technical progress.

The harmful factors of the physical, chemical and biological nature influencing health of the population in modern conditions. Deposition and accumulation of harmful substances in various objects of the environment.

Value of biological chains in transfer of harmful substances (carcinogens, allergens, etc.) from the environment to the person.

Features of action on an organism of harmful factors of the environment.

Value of the combined, combined, complex, consecutive and intermittent action of various chemical and physical factors on an organism.

The remote effects of action of harmful factors on an organism, reflection of this action in structure and incidence of the population.

Hygienic regulation and forecasting. Methodology and principles of hygienic regulation (maximum allowable concentration, PDU, OBUV) as principles of the sanitary legislation.

Use of achievements of scientific and technical progress for the purpose of protection and improvement of the environment and health of the population. Laboratory and tool methods of assessment of factors of the environment, complex assessment. System and factorial analysis of influence of the environment on the state of health of the population and demographic indicators. Forecasting of an ecological situation in the area, use of these data in work of the doctor of a medical profile. Social and hygienic monitoring.

Role and the place of the doctor in development of comprehensive programs within various

administrative educations in the field of protection and improvement of the habitat of the person, maintaining his health.

Legislative documents concerning protection and to rational use of natural resources.

Section 2. Hygiene of the air environment. Solar radiation

Topic 2.1. Hygiene of the air environment

Physical properties of air and their value for an organism (temperature, humidity, barometric pressure and speed of the movement of air). Microclimate and its hygienic value. Types of a microclimate and influence of microclimate on heat exchange and health of the person (overcooling and overheating).

Electric conditions of the atmosphere (air ionization, electric field of Earth, geomagnetic field, electromagnetic fields of radio frequencies, etc.), its hygienic value. Natural radioactivity of air and its hygienic value.

Chemical composition of atmospheric air and its hygienic value. Pollution and protection of atmospheric air as social and hygienic problem. Hygienic characteristic of the main sources of pollution of atmospheric air. Qualitative and quantitative structure of emissions in the atmosphere on primary branches of the industry. Degree of danger of industrial emissions to the environment and state of health of the population. Main nature protection actions and their hygienic efficiency. Methods of cleaning of production emissions in atmospheric air. The legislation in the field of protection of atmospheric air.

Topic 2.2. Solar radiation

Solar radiation and its hygienic value. Light climate. Hygienic characteristic of infrared, ultra-violet and visible parts of a solar range. Biological effect of an ultra-violet part of a solar range depending on a wavelength. Ultra-violet failure, its implication and prophylaxis. Artificial sources of ultra-violet radiation, their hygienic assessment.

Topic 2.3. Hygienic value of the main parameters of the environment

Hygienic requirements to air thermal regimen, natural and artificial lighting.

Topic 2.4. Methods of study of the main parameters of the environment

Order and equipment for assessment of key parameters of the external environment: temperatures, humidities, rates of the movement of air, pressure

Section 3. Hygiene of water and water supply of the inhabited places

Topic 3.1. Hygienic assessment of quality of drinking water

Physiological, sanitary and hygienic and balneal value of water. Norms of water consumption for the population. Hygienic requirements to quality of drinking water at the centralized and local water supply. Zones of sanitary protection of water sources.

Comparative hygienic characteristic of sources of water supply. Methods of cleaning of production emissions in water. Waste-free and low-waste productions.

Sanitary protection of the reservoirs and coastal sea waters used for the recreational, recreational and medical purposes. The legislation in the field of protection of reservoirs and sources of water supply.

Topic 3.2. Methods of improvement of quality of drinking water

The sanitary characteristic of the centralized and decentralized system of water supply. Hygienic requirements to the device and operation of mine wells and other constructions of local water supply.

The centralized system of water supply, the main methods of cleaning of drinking water: clarification, decolouration, coagulation, upholding, filtration; decontamination (chlorination, ozonization, UF-radiation, etc.). General scheme of the device of a water supply system.

Special methods of improvement of quality of drinking water (fluorination, defluorination, deodorization, deactivation, deferrization, desalting, etc.).

Topic 3.3. Chemical significance of water

Chemical composition of water. The diseases bound to the use of the water containing chemical impurity. Principles of prophylaxis of diseases of water character.

Topic 3.4. Epidemic significance of water

Reasons of anthropogenic pollution of reservoirs. A water role in diffusion infectious and parasitic diseases.

Section 4. Soil and sanitation of populated areas

Topic 4.1. Hygiene of the soil

Hygienic value, structure and properties of the soil. Processes of a self-cleaning of the soil. Characteristic of natural and artificial biogeochemical provinces. Migration and a turnover of trace substances in the biosphere.

Endemic diseases and their prophylaxis. Modern methodical approaches to hygienic rationing of trace substances and other chemicals. Characteristic and sources of anthropogenic pollution of the soil. Pesticides, mineral fertilizers, biological effect, biotransformation. Epidemiological value of the soil. Sanitation soil of populated areas. Actions for protection of the soil, their efficiency. The system of cleaning of the city and the rural inhabited point. Collecting, excision, neutralization and utilization of sewage and municipal solid waste by various methods. Methods of cleaning of production emissions in the soil, burial of high-toxic and radioactive waste. A concept about the small sewerage and its use. Hygienic requirements to places of burial of corpses. The nature protection legislation in the field of protection of the soil.

Section 5. Nutrition and human health

Topic 5.1. The base of nutrition hygiene

Value of food for health and physical development of the population. Biological and ecological problems of food. Concepts and principles of a balanced diet. Quantitative and qualitative full value of food, balance of a diet. Characteristic of physiological norms of food. A concept about the food status.

Analysis of various theories of food (vegetarianism, starvation, separate food, etc.). Whites of an animal and phytogenesis, their sources, hygienic value. Plain and complex carbohydrates, their sources, hygienic value. A concept about the refined products and the "protected" carbohydrates.

Food fibers, their role in food and digestion. New food on the basis of nonconventional sources of white. Diet. Sense of fullness, digestion of food, factors them defining. Methods of nutrition studying

Topic 5.2. Order of sanitary and hygienic examination of foodstuff

Nutrition value and sanitary and hygienic assessment of the main food (grain, milk, vegetables and fruit). Hygienic assessment of the products preserved by various methods. A concept about good-quality, substandard and conditional and good products.

Indicators of quality of foodstuff. Sanitary protection of foodstuff as main part of environmental protection.

Topic 5.3. Therapeutic and preventive nutrition. Clinical nutrition.

Features of catering services of the persons which were affected by radionuclides in the levels exceeding admissible. Features of a delivery of separate groups of the population.

Prevention of the diseases connected with irrational food. Alimentary dystrophy. Kvashior-kor. Excess food, its role in formation of cardiovascular and other pathology. The diseases connected with specific features of an organism, their prevention. Features of food of children and elderly people.

Topic 5.4. Hygienic requirements to the organization of work of catering department of medical institution

Hygienic requirements to planning, the equipment, the mode, operation of catering departments. Hygiene of personnel.

Topic 5.5. Food poisonings and their prophylaxis

Contaminants of foodstuff. Value of chains of migration of toxic and radioactive materials through food to the person.

Development of the actions referred on prevention of pollution of foodstuff taking into account toxicity, cumulative properties, fastness to environment factors.

Food poisonings and their classification. Food poisonings of the microbial nature. Toxinfection of various etiology. Botulism, staphylococcal toxicosis. Mikotoksikoza: ergotism, fusariosis,

aflatoksi-goats. A role of food in developing of microbial food poisonings of various etiology. Food poisonings of not microbial nature: products, toxicant by the nature, the products containing residual amounts of chemicals in the doses exceeding maximum allowable concentration. Examination of food poisonings. Prophylaxis of food poisonings and infections. A role of the attending physician in investigations of alimentary poisonings and the organization of preventive actions.

Section 6. Occupational health

Topic 6.1. Basic physiology of labor. Changes in the human body in the course of employment. The main legislation on labor protection, precepts of law, labor protection of women and teenagers. Fundamentals of physiology of work. Brainwork and physical work. Changes in a human body in the course of work. Fatigue and overwork, overstrain and their prophylaxis. Features of working conditions during the modern period.

Prophylaxis of the diseases bound to the high level of a psychological strain, an intensification of productions. Hygiene of brainwork. Occupational exposures and poisonings diseases

Professional harmfulness, occupational diseases and poisonings. Influence of working conditions on a case rate of industrial workers. The general principles of holding recreational actions on production: technological, sanitary and treatment-and-prophylactic. Hygienic rationing of factors of production medium. Individual protection equipment.

Hygienic requirements to sanitary devices at the industrial enterprises (ventilation, lighting, heating, etc.). Microclimatic conditions in various production rooms.

Professional harmfulness in hot shops. A professional harmfulness during the work in the open air. Measures of prophylaxis of overheatings and frigorisms of an organism.

Influence of the increased and lowered atmospheric pressure in conditions of production. Lacunar illness, its prophylaxis.

Production hum and vibration, influence on an organism. Noise and vibratory illnesses. Measures of prevention of harmful effects of hum and vibration.

Industrial dust. The occupational diseases bound to work on production with high dust content of air. Types of a pneumoconiosis and their prophylaxis. A concept about harmful substances and professional poisonings. General patterns of effect of industrial chemicals.

Acute and chronic poisonings. Professional poisonings with carbon monoxide, sulfurous gas, nitrogen oxides, lead, Hydrargyrum, beryllium, organic dissolvents. Prophylaxis measures

Topic 6.2 Prevention of occupational diseases of medical personnel

The shop doctor, the main directions in work. Organization and order of performing preliminary and periodic medical examinations. Treatment-and-prophylactic delivery of workers. Production traumatism. The main reasons for traumatism on production. Actions for injury prevention. Prophylaxis of eye traumatism and pustular diseases of a skin. Indicators of health of working.

Questions of occupational health of health workers.

General characteristic of a professional harmfulness of medical work of the physical, chemical and biological nature.

Occupational health of surgeons, obstetricians-gynecologists, anesthesiologists. Characteristic of working conditions: physical fatigue, psychological strain, microclimate of operating rooms, air pollution by anesthetics. Case rate, actions for improvement of working conditions. Occupational health of health workers in altitude chambers. Classification of altitude chambers to destination. Demands to equipment, the equipment and a microclimate of rooms of altitude chambers. Impact on an organism of an oxygenation and elevated pressure. Barotraumas and their complications. Prophylaxis measures. Regimen of a compression and decompression. Selection criteria of the persons allowed to work in altitude chambers.

Occupational health in physiotherapeutic offices. Influence of currents UHF and microwave oven, maximum-permissible sizes of intensity of radiation. Sources of infrared and ultra-violet radiation, their impact on an organism. Organization of protection of personnel. Occupational health in radiological departments of hospitals and laboratories. Occupational health of doctors of a stomatologic profile (therapists, surgeons, prosthetists) in the conditions of polyclinic reception.

Topic 6.3. Hygienic requirements to the device and operation of X-ray apparatus and carrying

out X-ray inspections

Use of radioactive materials in the opened and closed look.

Biological effect of the ionizing radiation. Characteristic of main types of radiation (alpha, beta, gamma, x-ray). The factors defining radiation hazard. Radiotoxicity. Standards of radiative safety. Principles of protection against external ionizing radiation and incorporation of radioactive materials.

Radiative control. Hygienic requirements to placement, planning and the equipment of radiological departments of hospitals.

The collecting, excision and neutralization of radioactive materials, their transportation in radiological departments of hospitals.

Occupational health of medical personnel at X-ray inspections. Dozny fields in X-ray diagnostic offices and when using mobile X-ray apparatus.

Radial load of medical personnel at radiological procedures. Radiation control.

Occupational health of health workers when using lasers. Classification of lasers by physics and technology parameters and degree of danger of the generated radiation.

The harmful factors accompanying operation of lasers.

Biological effect of laser radiation on eyes, a skin, internals. Maximum-permissible levels of laser radiation. Providing safe working conditions.

Section 7. Hygiene of children and adolescents

Topic 7.1 Sanitary and epidemiological requirements for the design, content of the work of pre-school educational institutions. Main problems of hygiene of children and teenagers. Age morfo-functional features of a children's organism as basis of hygiene of children and teenagers.

State of health of children and teenagers. Influence of social and ecological factors on the state of health. Criteria and groups of health.

Physical development as indicator of health of the population. Methods of assessment of physical development (sigmalny, regression, tsentilny). Complex assessment of physical development. Acceleration, retardation, detseleration.

Social and hygienic value of change of rates of age development.

Hygienic bases of a day regimen. The main regime moments, their sequence and duration for children of prepreschool, preschool and school age.

Hygienic bases of physical training and hardening. Forms of physical training. Medical groups for occupation physical culture. The organization of occupations and the demand to creation of a physical education class.

Topic 7.2. Hygienic requirements to training conditions in educational institutions. Hygiene of studies at school. The factors contributing to the development of a fatigue, prophylaxis of a fatigue.

Hygienic requirements to the organization of a lesson, school day, educational week. A role of active recreation in prophylaxis of a fatigue. Definition of readiness for training in a complex of medical and psychophysiological criteria.

Hygienic requirements for the placement, planning and equipping of preschool and school institutions. The main directions of the work of the doctor of children's and adolescent institutions

Hygiene of labor and inservice training. Vocational guidance and medical and professional consultation.

Section 8. Hygiene of treatment and prevention facilities

Topic 8.1. General principles of planning of treatment and prevention facilities

Main objectives of hospital hygiene. Modern hygienic problems of hospital construction. Hygienic requirements to placement of hospitals and planning of the hospital site. Systems of building of hospitals, zoning of the hospital site.

Hygienic requirements to reception, to ward section, to the operational block and other structural divisions of hospitals.

Microclimate, indicators of natural and artificial illumination, types of the insolyatsionny mode, sources of air pollution of hospital rooms. Ways of sanitation of air.

Elements of sanitary improvement of hospitals - heating, ventilation, water supply, the sewerage, their hygienic assessment.

Health regulations of descent and purification of hospital sewage, collecting and removal of solid waste. Analysis of the project of a medical organization

Topic 8.2. Planning and an operating mode in infectious office of hospital

Planning and operating mode in infectious office of hospitals.

System of sanitary and hygienic actions for creation of the guarding mode and favorable conditions for stay of patients in medical institution.

Topic 8.3. Hygienic aspects of prophylaxis of intrahospital infections

Hygienic aspects of prophylaxis of intrahospital infections. Planning, sanitary and disinfection actions. Sanitary and hygienic and antiepidemic regimen of hospital. Prevention of nosocomial infections in a health facility

Topic 8.4. Subject 8.4. Sanitary and epidemiologic demands to out-patient and polyclinic stomatologic institutions

Dental out-patient departments. Hygienic requirements to the device and operation of units of a therapeutic, surgical and orthopedic odontology and dentitechnical laboratories. Internal finishing of rooms, heating, ventilation, lighting. Hygienic requirements to the equipment and tools, care of them, sterilization and disinfection. Sanitary examination of projects of dental out-patient departments. Sanitary inspection of stomatologic offices, dentitechnical laboratories, equipment and tools, microclimate assessment.

5. Educational technologies

1. Traditional occupations with manuals, documents (orders, instructions, etc.)
2. Testing.
3. Multimedia lectures.
4. Solution of situational tasks.
5. Performance of written works (papers on the set or free subject, reports).
6. Independent work with literature.
7. Teaching and learning materials for students' individual work. Forms of current and interim assessment.

5.1. Active methods of training

Method of the analysis of concrete situations
Research and assessment of microclimatic conditions
Research and assessment of quality of drinking water.
Research and assessment of food
Sanitary and hygienic examination of the hospital
Sanitary and hygienic examination of schools

5.2. Solution of situational tasks

Hygiene of food
Hygiene of medical institutions
Hygiene of children and teenagers
Occupational health

In order to implement an individual approach to teaching students who carry out the learning process on their own trajectory within the framework of an individual work plan, the study of this discipline is based on the following possibilities: providing out-of-class work with students including in the electronic educational environment using appropriate software equipment, distance learning forms, the possibilities of Internet resources, individual consultations, etc.

**6. Educational and methodological support of students' out-of-class work.
Assessment means for current progress monitoring, interim attestation of subject mastering results.**

6.1. Student self-study plan

Week №	Topic	Out-of-class work type	Task	Recommended literature	Amount of hours
1	History of the development of hygiene, ecology	Preparing Papers	<i>Analyze the literature Make Paper</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
2	Hygiene of air environment	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
2	Solar radiation	Preparing Papers	<i>Analyze the literature Make Paper</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
2	Hygienic value of the main parameters of the environment	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
3	Methods of study of the main parameters of the environment	Preparing for class work	<i>Learn materials, answer questions to materials, answer test solve problems</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
4	Assessment of the quality of drinking water	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2,5
4	Methods to improve the quality of drinking water	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
5	Chemical significance of water	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
6	Epidemic significance of water	Preparing for class work	<i>Learn materials, answer questions to materials, answer test solve problems</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
6,7	Seminar (interim assessment)	Preparing for seminar	<i>Learn materials, answer control questions to seminar</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2
8	Hygiene of soil Sanitation soil of populated areas	Preparing for class work	<i>Learn materials, answer questions to materials,</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2

			<i>answer test</i>		
9	Nutrition and human health Methods of nutrition studying	Preparing for class work	<i>Learn materials, answer questions to materials, answer test solve problems</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2
9	Order of sanitary and hygienic examination of foodstuff	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
10	Therapeutic and preventive nutrition. Clinical nutrition.	Preparing Papers	<i>Analyze the literature Make Paper</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
11	Hygienic requirements to the organization of work of catering department of medical institution	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
11	Food poisonings and their prophylaxis	Preparing for class work	<i>Learn materials, answer questions to materials, answer test solve problems</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
12 13	Seminar (interim assessment)	Preparing for seminar	<i>Learn materials, answer control questions to seminar</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	4
13	Occupational hygiene Basic physiology of labor. Changes in the human body in the course of employment Occupational exposures and poisonings diseases	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2
14	Prevention of occupational diseases of medical personnel	Preparing Papers	<i>Analyze the literature Make Paper</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2
	Hygienic requirements to the device and operation of X-ray apparatus and carrying out X-ray inspections	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	2
15	Sanitary and epidemiological requirements for the design, content of the work of pre-school educational institutions	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
15	Hygienic requirements for the placement, planning and equip-	Preparing for class work	<i>Learn materials, answer questions to mate-</i>	a) 1 b) 1,2,3 c)1,2,3	1

	ping of school institutions		<i>rials, answer test</i>	List of Literature	
16	General principles of planning of treatment and prevention facilities	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
17	Planning and an operating mode in infectious unit of hospital	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
17	Hygienic aspects of prophylaxis of intra-hospital infections	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
18	Sanitary and epidemiologic demands to outpatient and polyclinic stomatologic institutions	Preparing for class work Preparing Papers	<i>Learn materials, answer questions to materials, answer test Analyze the literature Make Paper make an intellectual map</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	1
19	Sanitary and epidemiologic demands to stationary stomatologic institutions	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	0,5
19	Pre-fail exam	Preparing for class work	<i>Learn materials, answer questions to materials, answer test</i>	a) 1 b) 1,2,3 c)1,2,3 List of Literature	3
General load, in hours					36

6.2. Instructional guide lines on students' out-of-class work organization

By preparation for practical occupation the student has to get acquainted with a subject of the forthcoming occupation, know the purpose of occupation and a task which are set for it on this occupation, to study the list of control questions, standard test tasks.

1. Preparation for classroom occupations: using textbooks, lecture material, Internet resources the student answers control questions to occupation, repeats the practical skills necessary for development of this subject of occupation.

2. Preparation of papers: after delivery by the teacher of a task the student studies materials of the textbook, lectures on this subject, then passes to additional literature, the Internet to the resources and scientific publications recommended by the teacher of this subject.

On a subject of each occupation educational and methodical grants for students are prepared. The grant contains questions for preparation for occupation, the recommended literature, theoretical material, samples of the solution of tasks, a task for independent work, test questions. Students are provided with electronic option of an educational and methodical grant.6.3. Current and interim assessment materials

6.3. Materials to carry out current monitoring and interim attestation of students' knowledge

Competence mastering assessment

№	Assessment type	Monitored topics (sections)	Competences that include components under assessment
1	Interview	Section 1-8	SPC-1,4,12
2	Test marking	Section 1-8	SPC-1,4,12
3	Paper marking	Topic 2.2, 3.1, 4.1, 5.3, 6.2, 8.4	SPC-1,4,12
5	Skill check	Topic 3.1, 4.1, 6.2, 8.4	SPC-1,4,12

Demonstrative variant of the situational tasks

Task 1

Microclimatic conditions were studied in the 3-bed ward with an area of 21 m² (at a depth of 5.5 m and a height of 3.5 m) in the therapeutic department of the hospital, the following data were obtained: - the reading of the thermometer placed on the light-bearing (external) wall was 20.50C, located on the opposite (internal) wall 22.0C, on the inner side wall (at a distance of 3 m from the light-bearing wall) - 21.50C. All measurements were made at a height of 1 m from the floor. The vertical temperature drops were 10 ° C per meter of room height. The relative humidity measured by the aspirational psychrometer was 20%, the air velocity in the center of the chamber was 0.05 m / s.

Normative documents: SanPiN 2.1.3.1375 - 03 "Hygienic requirements for the placement, installation, equipment and operation of hospitals, maternity hospitals and other medical hospitals".

Give a hygienic conclusion on this situation.

Task2

There is the laboratory of the diagnostic department of the oncological hospital in the city of N. work with beta-emitting isotopes. With a surface area of 250 cm² of the laboratory floor, flushing was carried out. After the radiometric study, radioactive contamination of the flushing was found equal to 5.5 × 10⁵ particles / min.

Normative documents: "Norms of radiation safety-99 SP 2.6.1.758-99", Basic sanitary rules for ensuring radiation safety of SP 2.6.1.799-99.

Give an opinion on the level of contamination of the floor surface in the laboratory and, if necessary, recommendations for its reduction.

Task 3

30% of the examined individuals complained of excessive bleeding gums, at a medical examination of industrial workers of the metal work plant, conducted in March. On examination: edematous and loosened gums. After a small massage of the gums with your finger, scarlet blood appears on the mucous membrane. When measuring blood pressure, point hemorrhages were noted at the site of the cuff application.

Normative documents: "Norms of physiological needs in food substances and energy for different population groups." Ministry of Health of the USSR No. 5786-91, "Instruction on the work of the sanitary and epidemiological service for controlling the C-vitaminization of finished food, vitamin quality of diets, vitamin content in vitamin products of mass consumption and the issuance of vitamin preparations in industrial enterprises »Ministry of Health of the USSR No. 997-72 ..

Assess the situation and indicate the possible cause of complaints made by employees of the enterprise.

Evaluation criteria and decision of situational tasks

"Excellent" – grade is granted to a student, if the answer is complete, competent, logical; fluent terminology.

"Well" – grade is granted to a student, if the answer is logical enough with a single error in the particulars; a single error in terminology.

"Satisfactory" – grade is granted to a student, if the answer is not enough competent, incomplete, with errors in details; the error in terms.

"Unsatisfactory" – grade is granted to a student, if the answer illiterate, incomplete, with gross errors; lack of knowledge of terminology.

Demonstrative variant of the test

CHOOSE ONE CORRECT ANSWER:

1. Health - is:

- a) medical science that studies the influence of the environment on the health of certain population groups
- b) the branch of medicine that studies the impact of living and working conditions on human health, developing measures for disease prevention, ensuring optimum living conditions, health and long life.
- c) the field of medicine, which develops standards for hygiene.

2. Methods that do not apply hygiene:

- a) methods of sanitary inspection.
- b) description of the method of health
- c) the experimental method with volunteers.
- d) sanitary-statistical methods.
- e) hygienic experimental methods.

3. If any characteristics of the health condition of the sanitary-epidemiological situation is recognized as a sanitary-epidemiological safety:

- a) The process of accumulation of pathological changes in the organism.
- b) Changes in the body mainly at the level of pre-pathology.
- c) Lack of environment-related reactions.

4. If any characteristics of the environmental quality status of the sanitary-epidemiological situation is recognized as a sanitary-epidemiological trouble:

- a) Placement of residential areas and community facilities in the sanitary protection zones of intensive (excess) pollution.
- b) Accommodation of people in the zones of influence of industrial pollution are not above the standard of pollution.
- c) Accommodation of people in areas free from pollution.

5. If any characteristics of the socio-economic aspects of the sanitary-epidemiological situation recognized as well:

- a) The economic costs of increased morbidity exceeds the cost of prevention and treatment Ecopathology.
- b) The economic damage from the disease, due to the influence of environmental factors is comparable to the cost of prevention and treatment.
- c) The economic damage is not formed under the influence of environmental factors.

6. Habitat man - is:

- a) a set of social and economic factors that have (or can have) a certain impact on the health and disease of a certain group of people (the population of the territory), the effect of which is a major public health challenge.
- b) collection of objects, phenomena and environmental factors (natural and artificial) environment, which determines the conditions of human life.
- c) factors of the environment, defining the conditions for the existence and functioning of the human community.

7. Give an official definition of "environmental factors":

- a) biological, chemical, physical, social and other environmental factors that affect or may affect the rights and (or) on the health of future generations.

- b) the environmental factors that contribute to the development of various types of pathological conditions or diseases in certain population groups.
- c) a set of social, biological, genetic and medical records, determining the state of illness and health.
8. Among the risk factors that have a definite impact on the health and morbidity of the population occupies a leading position:
- a) the state of the external (environmental) environment.
- b) the genetic and biological characteristics of humans.
- c) lifestyle.
- d) the level of health care.
9. The leading federal legislative document defining basic concepts, requirements and provisions of the sanitary-epidemiological well-being is:
- a) the Constitution of the Russian Federation.
- b) The laws and other normative legal acts of the Russian Federation.
- c) the Federal Law "On sanitary and epidemiological welfare of population" from March 30, 1999 №52-FZ.
- d) Federal Law of 4 May 1999 №96-FZ "On Air Protection".
- e) Federal Law of January 10, 2002 № 7-FZ "On Environmental Protection".
- f) Federal Law of 2.01.2000g. №29-FZ "On quality and food safety."
10. The State Sanitary and Epidemiological Service of the Russian Federation - is:
- a) a single centralized system of federal bodies and agencies exercising state sanitary - epidemiological supervision in the Russian Federation.
- b) the system of bodies and establishments that execute the state sanitary and epidemiological supervision in the Russian Federation and members of the health care system.
- c) centers of state sanitary and epidemiological supervision in the Russian Federation constituting a network of institutions that carry out state sanitary and epidemiological supervision in the Russian Federation and under the Ministry of Health of the Russian Federation.
11. The direct management of the State Sanitary - Epidemiological Service of the Russian Federation shall:
- a) The Minister of Health of the Russian Federation.
- b) First Deputy Minister of Health of the Russian Federation - the chief state sanitary doctor of the Russian Federation.
- c) Department of Sanitary Inspection of the Ministry of Health of the Russian Federation.
- d) Federal Centre for Sanitary Inspection Ministry of Health of the Russian Federation.
12. Day of Education of the State Sanitary and Epidemiological Service of Russia officially considered:
- a) October 8, 1927.
- b) December 23, 1933.
- c) September 15th, 1922.
- d) 30 March 1999.
13. The risk to health - it is:
- a) the possibility (probability) of occurrence of harmful effects for the population (or individual) health, damage to health in a particular direction with a certain danger (the so-called risk factors).
- b) the possibility of the appearance of harmful effects to health of damage to health in a particular direction with a certain danger (the so-called risk factors).
- c) the likelihood (or lack thereof) of occurrence of symptoms of defects for the population (or individual) health damage (explicit or indirect) to health in a particular direction when exposed to certain risk factors.
14. The system does not include the notion of risk:
- a) health and criteria for its evaluation.
- b) environment and its hygienic characteristics;
- c) assessment of public awareness about the state of their health.
- d) the identification of risk factors;

e) socio-hygienic monitoring.

15. The methodological basis of the analysis of risk factors are:

a) the socio-hygienic monitoring.

b) morbidity data in dynamics.

c) evaluation of individual environmental factors in relation to the incidence of various types of diseases.

d) hygienic ranking residential areas as a result of a comprehensive assessment of the quality of the environment and population health status.

16. Hygienic norm - is:

a) qualitative indicator content of certain substances in the main components of the natural environment.

b) set research permissible maximum or minimum quantitative and (or) the qualitative value of the index, characterizing a particular environmental factors in terms of its safety and (or) harmlessness for human beings.

c) set the permissible quantitative and (or) the qualitative value of the index, characterizing a particular environmental factors in terms of its safety and harmlessness to humans.

17. The maximum allowable concentration - is:

a) concentration, which when exposed to a person directly or indirectly causes abnormalities in the condition of the body detected by modern methods of research at once or in remote periods of life of present and future generations.

b) the maximum concentration, which when exposed to a person directly or indirectly causes abnormalities in the body beyond the physiological reactions detected by the methods of research in terms of the life of the present and future generations, and does not worsen the conditions of life and work.

c) the maximum concentration, which when exposed to a person throughout his life, directly or indirectly, does not cause deviations in the body beyond the adaptive physiological responses, detectable by modern methods of research at once or in remote periods of life of present and future generations, and not impairs the living and working conditions.

18. Give the definition of state sanitary - epidemiological rules and norms:

a) legal acts establishing sanitary - epidemiological requirements (including safety criteria and (or) harmlessness of environmental factors for humans, hygienic and other standards), failure of which poses a threat to human life or health, as well as the threat of the emergence and spread of diseases .

b) regulations establishing sanitary-epidemiological requirements (including safety criteria and (or) harmlessness of environmental factors for humans.

c) The documents issued by the Ministry of Health of the Russian Federation in the field of sanitary and epidemiological welfare.

19. The sanitary and epidemiological welfare of the population is defined as:

a) the state of health and the human environment in which there is no harmful effect of environmental factors on human and provided favorable conditions for its life.

b) the prevention of diseases in accordance with the sanitary - epidemiological situation and forecast of its change.

c) implementation of sanitary - epidemiological (preventive) measures organizational, administrative, engineering, health, veterinary and other measures aimed at eliminating or reducing harmful effects on human habitat factors, preventing the occurrence and spread of infectious diseases and mass non- diseases (poisoning) and their elimination.

20. The definition of social and hygienic monitoring includes:

a) assessment of the impact of environmental factors on the health of the population in order to create management decisions at the level of legislative and executive power.

b) a system of organizational, social, medical, sanitary-epidemiological, scientific and technical activities aimed at the organization of monitoring of the state sanitary and epidemiological welfare of the population, its evaluation and forecasting of changes setting, prevention, elimination or reduction factors of the harmful effects of the environment on health human.

c) the state system of observations of the state of public health and the environment, analysis, evaluation and forecasting, as well as determining the cause - effect relationship between the state of health and the influence of environmental factors.

21. To the state sanitary-epidemiological situation does not apply:

- a) sanitary and epidemiological welfare.
- b) sanitary-epidemiological trouble.
- c) sanitary and epidemiological norms.
- d) sanitary-epidemiological security.

Criteria of estimation of the test

"Perfectly" ("5") – grade is granted to a student, if 91% and more correct answers to test tasks.

"Well" ("4") – grade is granted to a student, if 81-90% of the correct answers to test tasks.

"Satisfactorily" ("3") – grade is granted to a student, if 71-80% of the correct answers to test tasks.

"Unsatisfactorily" ("2") – grade is granted to a student, if 70% and less correct answers to test tasks.

Interview questions

1. Sanitary product. Definition. The research methods applied in hygiene.
2. Sanitary and epidemiologic wellbeing population, definition, maintenance.
3. Evaluation criteria at various levels of sanitary and epidemiologic situations.
4. Habitat factors. Group of factors on influence on health of the population.
5. Sanitary legislation of the Russian Federation, definition, main documents.
6. Hygienic standards, maximum allowable concentration, state sanitary - epidemiological rules and standards.
7. Hygienic value of physical properties of air.
8. Complex impact of the air environment on an organism.
9. Influence on an organism of atmospheric pressure.
10. Solar radiation and its hygienic value.
11. Natural lighting. Concept. Main requirements.
12. Artificial lighting. Concept. Main requirements.
13. Optimum microclimatic conditions.
14. Admissible microclimatic conditions.
15. Requirements to the organization of control and methods of measurement of a microclimate.
16. Classification of the noise influencing the person. The normalized parameters and extremely admissible noise levels in workplaces.
17. Classification of an infrasound.
18. Determination of insolation.
19. Determination of illumination in a workplace.
20. Devices for determination of size of atmospheric pressure and the rule of carrying out measurements.
21. Devices for determination of temperature and humidity of air.
22. Devices for determination of speed of the movement of air.
23. Characteristic of the main parts of atmospheric air.
24. Characteristic of anthropogenic pollution of atmospheric air. The main sources of entering of contaminants in atmospheric air.
25. Influence of pollution of atmospheric air on a state health of the population of the industrial cities. Influence of pollution of atmospheric air on sanitary living conditions of the population.
26. Adjustments of quality of atmospheric air of the inhabited places. The limiting (defining) indicator of a harmfulness of contaminants.
27. Planning, sanitary, technological actions for protection from pollution of atmospheric air.
28. Methods of assessment of health of the population in connection with pollution of atmos-

pheric air.

29. Physiological value of water for the person. Economic and household (hygienic) value of water for the population.

30. Characteristic of underground sources of water supply.

31. Characteristic of superficial sources of water supply.

32. Characteristic of economic and household and production drains, as polluters of water sources. Characteristic of other polluters of water sources.

33. Basic principles of the choice of a water source.

34. Protection of underground and superficial sources from pollution. Organization of zones of sanitary protection.

35. Influence of chemical composition of water on health of the person.

36. Definition of the basic concepts used at assessment of a water factor of transfer of infectious diseases.

37. Characteristic of processes of a self-cleaning of reservoirs.

38. General characteristic of a water factor of transfer of infectious diseases. Distribution of water sources on degree of sanitary reliability.

39. A general characteristic and classification of the diseases transmitted by a water factor. Survival of pathogenic microorganisms in the external environment.

40. Groups of "risk" of developing of the infections bound to a water factor of transfer. Main ways of contamination of water pathogenic microorganisms.

41. Characteristic signs of water epidemic flashes. Options of water flashes.

42. Characteristic of the waterway of transfer of a typhoid and cholera.

43. Shigelloses and role of the waterway of transfer of this group of intestinal infections.

44. Features of the waterway of diffusion of a viral hepatitis And.

45. Characteristic of the waterway of diffusion enteroviral, rotavirus infection and lambliaosis.

46. Epidemiological value of water in transfer of a hay fever and a tularemia. Ratio water and other ways of data transmission of infections.

47. Hygiene of a delivery, task and principles. Main feedstuffs.

48. The concept of state policy in the field of a healthy delivery of the population of the Russian Federation.

49. Bases of a balanced diet. Demands to a diet and a diet.

50. Proteins, their sources, hygienic value.

51. Fats, their sources, hygienic value.

52. Carbohydrates, their sources, hygienic value.

53. Mineral salts, their sources, hygienic value.

54. Classification and characteristic of microelementosis.

55. A concept about iodscarce diseases. Reasons. Organization of biological monitoring of security of the population with an iodine.

56. Group and individual prophylaxis of iodscarce diseases.

57. Vitamins, their sources, hygienic value.

58. Hypervitaminoses. Characteristic. Prophylaxis.

59. Hypovitaminoses. Reasons. Signs. Prophylaxis.

60. Methods of assessment of adequacy of a delivery.

61. Features of a delivery of children.

62. Features of a delivery of elderly people.

63. A delivery of people of brainwork on the example of students.

64. Features of a delivery of pregnant women and nursing mothers.

65. Hygienic requirements to planning, the equipment, a regimen, operation of catering departments of medical institutions. Personal hygiene of personnel.

66. Characteristic of diets of a treatment-and-prophylactic delivery.

67. Planned and unplanned sanitary and hygienic examination.

68. Principles and directions of sanitary and hygienic examination of milk and dairy products.

69. Principles and directions of sanitary and hygienic examination of meat.
70. Principles and directions of sanitary and hygienic examination of fish.
71. Principles and directions of sanitary and hygienic examination of grain products.
72. Principles and directions of sanitary and hygienic examination of vegetables and fruit.
73. Principles and directions of sanitary and hygienic examination of can food.
74. Tasks, principles and character of a treatment-and-prophylactic delivery.
75. Tasks, principles and character of clinical nutrition. Characteristic of diets of clinical nutrition.
76. Food poisonings and their classification.
77. Typhoid: etiology, clinical features, ways and factors of transfer. Prophylaxis.
78. The food poisonings caused by opportunistic flora.
79. Order of investigation of food poisonings.

Paper topicsetc.

1. Hygienic assessment of an academic load in educational institutions
2. Hygienic requirements to the collecting, excision, neutralization and utilization of sewage and municipal solid waste by various methods
3. Impact of factors of educational medium and training on the state of health of pupils
4. Hygienic requirements to the organization and carrying out microbiological researches in medical institutions
5. The hygienic principles of a healthy lifestyle of persons taking into account age
6. Acclimatization and its hygienic value
7. Medico-social assessment of traumatism as component of social and hygienic monitoring
8. Environmental problems of the industrial city and approaches to optimization of the urban environment
9. Prophylaxis of an adverse effect of electromagnetic radiations on patients and personnel of medical institutions
10. Formation of favorable internal medium of preschool institution – the main objective of prophylaxis of a disease among children
11. Hygienic parameters of the structure of medical institutions
12. Hygienic assessment of various ways of processing of drinking water
13. Monitoring of a condition of a delivery of students
14. Value and catering services of school students in educational institutions from positions of primary prophylaxis
15. Hygienic actions for the address of a medical wastage in treatment-and-prophylactic institutions
16. Problem of utilization of a medical wastage
17. Scientific and methodical approaches to hygienic rationing of publishing production
18. Hygiene of studies at school
19. Hygienic bases of physical training and hardening in children's collectives
20. Changes in health and a case rate of children and teenagers in connection with training in institutions of the general education
21. Hygienic assessment of influence of the computer equipment on health of working
22. Topical issues of hygiene of inhabited medium
23. Value of vitamins B delivery of separate groups of the population
24. A delivery at brainwork
25. Hygienic aspects of prophylaxis of a failure of fluorine in a population ration
26. Hygienic importance of pollution of the habitat pesticides
27. Organization and methods of performing prevention of an iodine deficiency
28. The organization and methods of performing prevention of deficiency of a selenium in the territory of the Penza region

29. A factor of radio uneasiness of the population in the system of hygienic monitoring
30. Hygienic assessment of impact of a radon on health of the population, prophylaxis measure
31. Monitoring of quality of food staples and foodstuff in the territory of the Penza region
32. Medico-social assessment of an infectious case rate as component of social and hygienic monitoring
33. Sanitary and hygienic assessment of sources of drinking water supply of the Penza region
34. Hygienic bases of cleaning of the inhabited places
35. Social and hygienic monitoring of objects of the territories used for storage and destruction of chemical weapon
36. Hygienic aspects by production and turnover of dietary supplements to a nutrition (dietary supplement)
37. Social and hygienic monitoring in the Penza region
38. Monitoring of congenital malformations as component of social and hygienic monitoring
39. Retrospective analysis of a mortality of the population as component of social and hygienic monitoring
40. Social and hygienic assessment of structure of a delivery of the population of the small cities of the Penza region
41. About the concept of development and reforming of laboratory service of the public sanitary and epidemiologic service
42. The main directions of implementation of the Regional action plan for hygiene of the environment in the territory of the Penza region
43. Regional indicators of hygienic monitoring of quality of water
44. Hygienic assessment of structure of the contaminants coming to atmospheric air (on an example)
45. Hygienic problems of the centralized drinking water supply of the population
46. Public sanitary and epidemiologic service of the Penza region: history development stages, modern problems and perspective tasks. (as option - across the certain territory of the Penza region)
47. Development of hygiene as the fields of medicine during the Soviet period and modern Russia
48. Hygienic requirements for production of milk and dairy products
49. Efficiency of improvement of children in the conditions of country recreational institutions
50. Hygienic aspects of monitoring of production and the product sales received from genetically modified sources
51. Legislative ensuring sanitary and epidemiologic wellbeing of the population.
52. A role of a nutritional factor in prophylaxis of negative impact of alcohol on a human body
53. Hygienic assessment of base stations of cellular communication as source of electromagnetic impact on the environment and health of the population
54. State of health of children and teenagers of the Penza region
55. Medico-social problems when forming at the population of installations on a healthy lifestyle
56. The organization and conducting sanitary and epidemiologic examinations of foodstuff and food staples in modern conditions
57. Organization of medical care of the children's population as important direction of prophylaxis of diseases
58. History of a becoming and development of hygienic science in pre-revolutionary Russia
59. A role of periodic medical examinations in the system of medical prophylaxis of diseases
60. Obesity as medical and social problem
61. Hygienic aspects in work of sectionings of service of a blood in medical institutions
62. Health protection of workers and prophylaxis of occupational diseases in modern conditions
63. Hygienic bases of a day regimen for children of preschool and school age
64. Food poisonings in the Russian Federation: condition of a problem and tendency

65. Problem of mercurial environmental pollution
66. Ecological situation and state of health of the population of the Penza region
67. Problem of pollution of atmospheric air by the motor transport and ways of its decision
68. Realization of system of assessment of risks for health of the population as the most important stage of social and hygienic monitoring
69. Iron deficiency diseases: problem, epidemiology and principles of prophylaxis
70. Modern problems of a delivery of children and teenagers
71. Formation and development of sanitary and epidemiologic service of the Russian Federation
72. Professional case rate of health workers
73. Influence of chemical composition of water on the state of health of the population
74. Formation and development of sanitary and hygienic monitoring in the Russian Federation
75. Main directions of scientific providing system of social and hygienic monitoring
76. Hygienic criteria of establishment and change of sanitary protection zones of the enterprises, constructions or other objects
77. Hygienic assessment of exposure doses of the population through medical procedures

Criteria for evaluating the paper

"Excellent" - grade is granted to a student, if the author is familiar with the main literature of the issue, knows how to highlight the problem and determine the methods for solving it, is able to consistently state the essence of the issues under consideration, owns the corresponding conceptual and terminological apparatus, demonstrates an acceptable level of language literacy.

"Good" - grade is granted to a student, if the statement is not logical enough with single errors in details; single errors in the terminology; the topic as a whole is disclosed.

"Satisfactory" - grade is granted to a student, if the presentation is not literate, incomplete, with errors in details; uncertain knowledge of the main provisions and documentation; Errors in terminology; the topic is partially disclosed.

"Unsatisfactory" - grade is granted to a student, if the presentation is illiterate, incomplete, with gross errors; errors in assessing the situation; ignorance of terminology; the topic is not disclosed.

Exemplary list of Pre-fail examination questions

1. The subject and content of hygiene. The linkage of hygiene with other Sciences. The value of hygienic measures in the activities of the attending physician. Communication and interaction between preventive and curative medicine.
2. Development of hygiene in Russia.
3. Structure, activities and tasks of sanitary-epidemiological service. Federal law "On sanitary and epidemiological welfare of the population".
4. Action features on the body of harmful environmental factors. Risk factors, their classification.
5. Biological pollution of the external environment as an important sanitary and environmental issue.
6. Hygienic rationing. Methodology and principles of hygienic standardization as a basis of sanitary legislation.
7. Microclimate and its hygienic significance. Types of microclimate and influence uncomfortable micro-climate for heat exchange and human health (hypothermia, overheating).
8. Hygienic significance of the physical properties of air.
9. Solar radiation and its hygienic importance.
10. Atmospheric air as the external environment. Complex influence of meteorological factors on the human body.
11. Chemical composition of atmospheric air and its hygienic importance.
12. Pollution and air protection as a social and ecological-hygienic problem.

13. Hygienic characteristics of the main sources of air pollution and composition of emissions by key industries. Main environmental measures and their hygienic efficiency.
14. Hygienic requirements to quality of drinking water at the centralized and local water supply.
15. Comparative hygienic characteristics of water supply sources. The choice of sources of water supply. Causes of anthropogenic pollution of water sources.
16. Requirements for the organization of centralized water supply system, the main methods of cleaning to drink water.
17. Epidemiological significance of water.
18. Special methods to improve the quality of drinking water.
- Section 4. Hygiene of soil and sanitary cleaning of populated areas
19. Hygienic value of, composition and properties of the soil.
20. Endemic diseases, caused by chemical composition of the soil, and their prevention.
- Section 6. Hygienic problems of cities. Hygiene of residential and public buildings
21. Features of formation of the environment in cities. Air pollution, Vague-Dom, and soils.
22. The health status of the population in modern cities. Hygiene issues-plan and insured in key cities.
23. Food hygiene, tasks and principles. The main nutrients.
24. The concept of the state policy in the field of healthy nutrition of the population of the Russian Federation.
25. Fundamentals of nutrition. The requirements for dietary intake and diet.
26. Proteins, their sources, hygienic value.
27. Fats, their sources, hygienic value.
28. Carbohydrates, their sources, hygienic value.
29. Minerals, their sources, hygienic value.
30. Classification and characteristics of microelementoses.
31. The concept of the iodine deficiency diseases. Reasons. The organization of the biological monitoring of the progress provision of the population with iodine.
32. Vitamins, their sources, hygienic value.
33. The hypervitaminoses. Feature. Prevention.
34. The hypovitaminosis. Reasons. Signs. Prevention.
35. Methods of assessment of adequacy of nutrition.
36. Food poisoning and their classification. Food poisoning of microbial nature.
37. Diseases of various etiologies.
38. Botulism. Reasons. Signs. Diagnosis. Prevention.
39. Mycotoxicoses.
40. Food poisoning non-microbial nature.
41. Prevention of food poisoning and infections. The role of a physician in investigations of food poisoning and prevention.
42. The peculiarities of nutrition of children and the elderly.
43. Hygienic requirements to planning, equipment, regime, exploitation of the hospital kitchens. Personal hygiene of staff.
44. Characteristics of food rations preventive nutrition.
45. Principles and directions of the sanitary-hygienic examination of food products.
46. Objectives, principles and nature of therapeutic nutrition.
47. Objectives, principles and nature of clinical nutrition. Characteristics of the diets of clinical nutrition.
48. Over-nutrition and its role in the formation of cardiovascular and other diseases.
49. Fundamentals of physiology of labor. Changes in the human body in the course of employment.
50. Prevention of occupational diseases in the Russian Federation.
51. Industrial poisons, their classification. General regularities of action of industrial poisons.
52. The General principles of the health measures in the workplace: technological, sanitary-

technical and medical.

53. Industrial noise and vibration, effects on the body.

54. Industrial dust. Occupational diseases, work-related on the production of high dustiness.

55. Occupational injuries. The main causes of occupational injuries. Measures for the prevention of injuries.

56. The health of children and adolescents. The impact of social and environmental factors on health.

57. Physical development as an indicator of the health of the child population. Methods of estimation of physical development of children and adolescents.

58. Criteria and groups of health of children and adolescents.

59. Hygienic bases of physical education and hardening.

60. Acceleration of physical development.

61. Functions and tasks of a health worker in the school.

62. Functions and tasks of the medical worker in a preschool institution.

63. Hygienic requirements to organization of educational process.

64. Hygienic requirements to placing, planning and equipment of school facilities.

65. Hygienic requirements to placing, planning and equipment of preschool institutions.

66. Hygienic requirements to the air-heating mode, exposure, natural and artificial lighting in the educational institutions.

67. The task of the doctor in the preparation and conduct of the summer health work. Performance indicators.

68. Goals of preschool - school Department clinics, and adolescent Cabinet.

69. Hygienic requirements for catering in schools.

70. The hygienic principles of a healthy lifestyle of persons based on age.

71. Physical inactivity, its consequences and prevention.

72. Hygienic requirements to location of hospitals and the planning of the hospital precinct. System for the construction of hospitals, the zoning of the hospital site.

73. General principles of planning of medical institutions. The basic structural unit of a multi-disciplinary hospital.

75. Layout and mode of operation in the infectious Department of the hospital.

77. Hygienic requirements to organization to organization regime and labor protection of the staff of dent-logical units (physicians, surgeons, prosthetists).

78. The main requirements to the internal planning and sanitary-hygienic regime in polyclinica-ing offices. Features of the mode of operation of the clinic during the period of quarantine for infectious disease-Yam.

79. The concept of nosocomial infections. The prevalence in health care institutions. Problems of prevention at the present stage.

80. Hygienic assessment of microbial air contamination in hospitals.

Criteria of estimation of an interview on offset

"Perfectly" – grade is granted to a student, if the story full, competent, logical; free possession of terminology; sure knowledge of hygienic standards, medical documentation; answers to additional questions accurate short.

"Well" – grade is granted to a student, if the story insufficiently logical with single mistakes in particulars; single mistakes in terminology; answers to additional questions correct, insufficiently accurate.

"Satisfactorily" – grade is granted to a student, if the story insufficiently competent, incomplete, with mistakes in details; uncertain knowledge of the main hygienic standards and documentation; mistakes in terminology; answers to additional questions insufficiently accurate, with mistakes in particulars.

"Unsatisfactorily" – grade is granted to a student, if the story illiterate, incomplete, with gross blunders; mistakes at estimation of a situation; ignorance of terminology; answers to additional questions wrong.

7. Educational, methodological and informational means provided for subject Hygiene

a) basic literature:

1. Hygiene [Electronic resource] / Melnichenko PI, Arkhangelsky VI, Kozlova TA, Prokhorov NI, Semenovych GK, Semenovych L. N-M: GEOTAR-Media, 2014. –
<http://www.studmedlib.ru/book/ISBN9785970430835.html>
2. "Human hygiene and ecology [Electronic resource]: textbook / Arkhangel'skii VI, Kirillov VF - M.: GEOTAR-Media, 2013. - (Series" SPO ")."-
<http://www.studmedlib.ru/book/ISBN9785970425305.html>
3. Hygiene [Electronic resource] / G.I. Rummyantsev - M.: GEOTAR-Media, 2009.-
<http://www.studmedlib.ru/book/ISBN9785970411698.html>

b) additional literature:

1. Hygiene with the basics of human ecology [Electronic resource]: a textbook / Ed. Melnichenko P.I. - M.: GEOTAR-Media, 2013. -
<http://www.studmedlib.ru/book/ISBN9785970426425.html>
2. Occupational health. A Guide to Practical Studies [Electronic resource]: a tutorial / Kiryushin VA, Bolshakov AM, Motalova T.V. - M.: GEOTAR-Media, 2011.-
<http://www.studmedlib.ru/book/ISBN9785970418444.html>

c) software and Internet resources:

1. A single window of access to educational resources - <http://window.edu.ru/>
2. Scientific electronic library eLibrary.ru - <http://elibrary.ru/>
3. ELS "Student consultant" - <http://www.studmedlib.ru>

8. Material and technical means provided for subject Hygiene

No	Name of special rooms and premises for independent work	Equipment of special rooms and premises for independent work	Software
1.	Premises in accordance with the agreement with medical establishment (ME) (Rospotrebnadzor, Penza, Lermontov 36) Lecture hall: 6-1	Set of furniture: arm-chairs, tables, chair Multimedia projector A laptop Video (films, presentations)	«Microsoft Windows» (subscription DreamSpark/Microsoft Imagine Standart); registration number 00037FFEBA CF8FD7, agreement № СД-130712001 от 12.07.2013; - « Kaspersky Anti-Virus » 2016-2017, registration number KL4863RAUFQ, agreement № XII-567116 29.08.2016; <u>free software</u> : Open Office; Mozilla Firefox; Google Chrome; Adobe Acrobat Reader; 7zip.
2.	Premises in accordance with the agreement with medical establishment (ME) (Rospotrebnadzor, Penza, Lermontov 36) classroom 205	A set of educational furniture: tables, chairs, training board. A computer with training CDs, Normative documents, educational literature	«Microsoft Windows» (subscription DreamSpark/Microsoft Imagine Standart); registration number 00037FFEBA CF8FD7, agreement № СД-130712001 от 12.07.2013; - « Kaspersky Anti-Virus » 2016-2017, registration number KL4863RAUFQ, agreement № XII-567116 29.08.2016; <u>free software</u> : Open Office; Mozilla Firefox; Google Chrome; Adobe Acrobat Reader; 7zip.
3.	Premises in accordance with the agreement with medical establishment (ME) (Rospotrebnadzor, Penza, Lermontov 36) classroom 205 № 205a	A set of educational furniture: tables, chairs.	
4.	Audiences for self-study: PGU 10-204:	A set of educational furniture: tables, chairs, training board, computers with educational CDs	«Microsoft Windows» (subscription DreamSpark/Microsoft Imagine Standart); registration number 00037FFEBA CF8FD7, agreement № СД-130712001 от 12.07.2013; - « Kaspersky Anti-Virus » 2016-2017, registration number KL4863RAUFQ, agreement № XII-567116 29.08.2016; <u>free software</u> : Open Office; Mozilla Firefox; Google Chrome; Adobe Acrobat Reader; 7zip.

The work program of subject Hygiene was composed in compliance with requirements of FSES HE and academic plan for the educational program 31.05.03 "Stomatology"

The program was compiled by:
N.S. Zubriyanova , Associate Professor, PhD



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The program was approved at a meeting of sub-department Hygiene, Public Health and Health Care

Report № 6

from « 4 » 03 2016

Head of sub-department H,PHaHC


_____ A.P.Dmitriev

The program was approved by the head of The Medical Faculty

Dean of FS

(sub-department's title)


_____ L.A. Zyulkina
(signature, Full name, date)

The program was approved by the methodological committee of The Medical institute

Report № 7

from « 5 » 03 2016

Head of the methodological committee of
The Medical institute


_____ O.V.Kalmin

Information on re-confirmation of the program for the next academic year
and registration of changes

Academic year	Decision of the Department (№ protocol, date, signature of the head of the department)	Changes made	Number pages		
			changed	new	canceled
2016-2017 Academic year	Protocol No. 1, August 30, 16 Head of the Department 	Re-affirmation for a new school year			
2016-2017 Academic year	Protocol No. 11, June 9, 17 Head of the Department 	A change was made to the front page "Doctor Dentist - General Practice" on the «Dentist"	1	1	1
2017/2018 Academic year	Protocol No. 1, August 30, 17 Head of the Department 	Added in paragraph 5 description of the application of educational technologies to students with disabilities and disabled people	12	12	12
2017/2018 Academic year	Protocol No. 1, August 30, 17 Head of the Department 	Re-affirmation for a new school year			