

MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Educational Institution
BELARUSIAN STATE MEDICAL UNIVERSITY

**Контрольный
экземпляр**

APPROVED
by Rector of the Educational
Institution «Belarusian State
Medical University»
 S.P. Rubnikovich
20. 11. 2024
Reg. # UD- 091-106/2425 /edu.

GENERAL HYGIENE

**Curriculum of the educational institution
in the academic discipline for the specialty**

7-07-0911-03 «Dentistry»

Curriculum is based on the educational program «General Hygiene», approved 20.11.2024, registration # УД-091-106/2425/уч.; on the educational plan in the specialty 7-07-0911-03 «Dentistry», approved 15.05.2024, registration # 7-07-0911-03/2425/mf.

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RECOMMENDED FOR APPROVAL:

by the Department of General Hygiene of the Educational Institution «Belarusian State Medical University»
(protocol # 2 of 24.09.2024);

by the Scientific and Methodological Council of the Educational Institution «Belarusian State Medical University»
(protocol # 3 of 20.11.2024)

EXPLANATORY NOTE

«General Hygiene» - the educational discipline of the Medical-Prophylactic Module, which contains systematized scientific knowledge and techniques aimed at studying the influence of environmental factors on the human health, revealing the purpose, object, tasks and methods of hygiene as a science, the concept of risk factors as a basis of modern ideas about disease prevention, principles of prevention measures and regulations governing their conduct.

The aim of the discipline «General Hygiene» is the formation of basic professional competencies for organization of preventive, sanitary and hygienic measures in order to preserve and strengthen human health.

The objectives of the academic discipline «General Hygiene» are to form students' scientific knowledge about:

- the patterns of the impact of environmental factors on human health;
- the concept of risk factors, prenosological hygienic diagnostics;
- skills and abilities necessary for the organization of preventive measures aimed at maintaining and strengthening health, increasing working capacity.

The knowledge, skills and abilities acquired during the study of the academic discipline «General Hygiene» are necessary for successful mastering of the academic disciplines «Radiation Medicine and Ecology» and modules «General Clinical Therapy Module #1», «Medical Prevention in Dentistry», «Public Health and Health Care».

Studying the educational discipline «General Hygiene» should ensure the formation of students' basic professional competencies:

- use knowledge about the laws of the environmental factors impact on human health, apply methods of hygienic assessment of the human environment to develop basic preventive health-preserving measures;

- use knowledge about the risks of radiation and environmentally caused pathology, to apply methods to reduce radiation and environmental loads on the population.

As a result of studying the discipline «General Hygiene» the student should

know:

- elements and factors of the human environment;
- hygienic fundamentals of health lifestyle and the concept of risk;
- hygienic characteristics of the physical factors of the air environment: temperature, humidity, air mobility, thermal radiation;
- the chemical composition of the air, hygienic characteristics;
- hygienic characteristics of solar radiation and artificial lighting;
- physiological and hygienic importance of water, the laws of rational nutrition;
- general principles of action of harmful occupational factors (dust, noise, vibration, chemical factors, etc.) on the human organism;
- hygienic requirements for the functioning of organizations providing dental medical care;

be able to:

conduct complex hygienic assessment of environmental factors, impact of the physical factors of the air environment (temperature, humidity, air mobility, thermal radiation) on the human health;

conduct complex hygienic assessment of the quality of drinking water;

conduct hygienic assessment of nutritional status, assess the adequacy of individual nutrition;

assess negative impact of harmful occupational factors on the health of the dentists;

make a plan of preventive measures for prevention specific pathological conditions of the dental system;

assess the health state at the individual, group (collective) and the population levels;

carry out hygienic education and upbringing of patients and the population on the formation of a healthy lifestyle;

master:

methods for assessing the sanitary and hygienic condition of premises of organizations providing dental medical care;

methods of hygienic assessment of the interior layout and finishing materials (wall panels, paints, wallpaper, ceramic tiles, etc.) in the premises of organizations providing dental medical care;

methods of hygienic assessment of materials for the manufacture of medical clothing and shoes for single use;

methods of hygienic assessment of the degree of impact of harmful occupational factors (physical, chemical, biological, psychophysiological) on the health of employees of organizations providing dental medical care;

methods of hygienic assessment of the safety of medical waste management in the premises of organizations providing dental medical care;

methods for assessing the timeliness and completeness of periodic medical examinations by employees of organizations providing dental medical care.

Total number of hours for the study of the discipline is 80 academic hours, of which 51 classroom hours and 29 hours of student independent work. Classroom hours according to the types of studies: lectures - 15 hours (including 6 hours of supervised student independent work (SSIW)), practical classes - 36 hours.

Intermediate assessment is carried out according to the Medical-Prophylactic Module (academic disciplines «General Hygiene», «Radiation and Environmental medicine») according to the syllabus of the specialty in the form of a credit (4 semester).

Form of higher education – full-time.

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures	supervised student independent work	practical classes		
7-07-0911-03 «Dentistry»	4	80	51	9	6	36	29	credit

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures (incl. SSIW)	practical
1. Environment and it's hygienic importance	4,5	14
1.1. Hygiene as medical science. Structure of environment. Health assessment. The concept of risk factors as the basis of modern ideas about disease prevention	1,5	-
1.2. Physical properties and chemical composition of the atmospheric air	1,5	-
1.3. Hygienic assessment of the quality of drinking water	1,5	2
1.4. Hygienic assessment of microclimate parameters and the complex effect of meteorological factors on the human body	-	6
1.5. Hygienic assessment of lighting	-	2
1.6. Hygienic assessment of ventilation parameters	-	4
2. Nutrition hygiene	3	16
2.1. Food as an environmental factor	1,5	-
2.2. Hygienic assessment of the energy value and nutrient adequacy of the diet	-	4
2.3. Hygienic assessment of nutritional status	-	2
2.4. Hygienic assessment of the human body's vitamin supply	-	4
2.5. Prevention of food poisoning	1,5	4
3. Hygienic requirements for working conditions in organizations providing dental medical care	4,5	2
3.1. Hygienic expertise of the dental clinic project	-	2

Section (topic) name	Number of class hours	
	lectures (incl. SSIW)	practical
3.2. Hygienic requirements for parameters of microclimate, ventilation, lighting in the premises of organizations providing dental medical care	1,5	-
3.3. Hygienic requirements for interior decoration and cleaning of premises in organizations providing dental medical care. Hygienic requirements for personal hygiene	1,5	-
3.4. Hygienic requirements for the treatment of medical waste in organizations providing dental medical care	1,5	-
4. Prevention of the negative impact on human health of environmental factors in organizations providing dental medical care	1,5	6
5. State sanitary supervision	1,5	-
Total hours	15	36

CONTENT OF THE EDUCATIONAL DISCIPLINE

1. Environment and it's hygienic importance

1.1. Hygiene as medical science. Structure of environment. Health assessment. The concept of risk factors as the basis of modern ideas about disease prevention

Definition, purpose, object, tasks, theoretical aspects and methods of hygiene. The role of hygiene among other medical sciences. Hygiene tasks at the present stage. Differentiation of hygienic science.

The emergence and development of hygiene. Development of hygiene in Russia. The great russian hygienists - A.P.Dobroslavin, F.F.Erisman, G.V.Khlopin, A.A.Pokrovsky, K.S.Petrovsky. Ideas of preventive measures in the writings of scientists and clinicians M.Ya.Mudrov, N.I.Pirogov, S.P.Botkin, G.A.Zaharin, A.A.Ostroumov. Prominent Belarusian hygienists Z.K.Mogilevchik, P.V.Ostapenya, I.A.Chakhovsky, Kh.Kh.Lavinsky, O.P.Shepelin, M.S.Omelyanchik.

Environment as a combination of natural (air, water, soil, radiation, food, biosphere) and social (work, family life, social and economic structure) elements. Properties (factors) of natural (mechanical, physical, chemical, biological). Properties (factors) social elements of the environment: work (severity, intensity, mode, external conditions); life (placement, clothing, food, water, rest); the socio-economic system (social and legal status, material security, education, culture).

Hygienic rationing of environmental factors, principles of rationing.

Human health as a state of complete physical, mental and social well-being. Assessment state of the health state at the individual, group (collective) and the population level. Criteria for assessing of an individual health: physical development parameters (somatometric, somatoscopic, physiometric), physical training (speed, strength, endurance), indicators of homeostasis (the functioning of the cardiovascular

system, respiratory system, metabolism and energy), higher nervous activity, the immune status. Integral indicators of the individual health: capacity of work (physical, mental, professional), the duration of his employment (creative) activity.

Hygienic prenosological diagnostics: definition, purpose, subject, procedure. Premorbid conditions of the human body, their signs, evaluation criteria.

Preventive medicine. Types of medical prevention. Primary, secondary, and third stage of prevention. Public health: infrastructure, direction of activity, content and role of intersectoral cooperation.

Hospital hygiene as an integrated field of scientific and practical activity.

The main regulatory documents of the Republic of Belarus regulating the issues of public health.

Hygienic standardization of environmental factors. Principles of valuation.

Classification of risk factors. External risk factors: nutrition, housing, working conditions, recreation, ethnic characteristics, standard of living and lifestyle, natural and geographical conditions. Internal risk factors (congenital and acquired): arterial hypertension, hypercholesterolemia, overweight, endocrine regulation disorder and others. The individual constitution as a set of morphological and functional features of the human body that determine the originality of its reactivity and the result of the implementation of the genotype in specific environmental conditions. Grouping of risk factors according to Y.P.Lisitsyn: lifestyle; human genetics; habitat, including natural and climatic conditions; healthcare.

A healthy lifestyle, its components. Hygienic education and upbringing of the population, forms, methods and means.

Noncommunicable diseases and models of their development: ecological, accumulative, ontogenetic and genetic models. Prevention of major non-communicable diseases. Developmental models and alimentary prevention of atherosclerosis. The effect of smoking on health. Stress as a risk factor. Physical activity as an important factor in maintaining human health and preventing major non-communicable diseases.

1.2. Physical properties and chemical composition of the atmospheric air

The structure of the Earth's atmosphere, characteristics of the basic properties of the atmosphere. The influence of the atmosphere on the human body. The electrical state of the air environment, the characteristics of the main indicators, the impact on human health. Air ionization. The concept of heavy and light, positive and negative ions. The effect of ionization on human health.

The chemical composition of the air environment, its hygienic characteristics. Hygienic characteristics of the main sources of pollution of the air basin of populated areas. Mechanical and gaseous impurities in the air. Features of the quantitative and qualitative composition of impurities of atmospheric air and indoor air. The impact of atmospheric pollution on public health. Measures to control atmospheric pollution. Organization of monitoring of the state of atmospheric air.

1.3. Hygienic assessment of the quality of drinking water

The physiological and hygienic significance of water. Natural water sources and their hygienic characteristics. The concept of endemic diseases. Epidemiological significance of water. Water-borne infectious diseases.

Hygienic requirements for the quality of drinking water. Assessment of physical and organoleptic parameters; substances that are indifferent and have a positive physiological value (carbonates, bicarbonates, calcium, magnesium, iron). Assessment of chemical parameters of organic water pollution: pH, content of ammonium salts, nitrites, nitrates, chlorides, oxidizability.

Methods for improving water quality: clarification and discoloration (coagulation and filtration), disinfection (chlorination, ultraviolet irradiation, ozonation). Chlorination of water with normal doses of chlorine. Chlorine demand. Chlorine absorption. Residual chlorine.

1.4. Hygienic assessment of microclimate parameters and the complex effect of meteorological factors on the human body

Weather and climate. The concept of climate-forming factors. Seasonal changes in the usual climatic and electrometeorological factors. The influence of climatic factors on the human body. The concept of seasonal and meteotropic diseases. Weather dependence. The importance of active prevention, taking into account the influence of weather conditions on the human body.

The concept of microclimate. Acclimatization and adaptation as a complex socio-biological process of human adaptation to new living conditions. Physiological shifts in the human body that develop during the period of acclimatization and adaptation in unusual conditions. Factors and conditions conducive to acclimatization and adaptation. The importance of the conditions and regime of work, rest, everyday life, the nature of nutrition, physical training and tempering for faster and more complete acclimatization and adaptation.

Hygienic characteristics of physical factors of the air environment (temperature, humidity, air mobility, barometric pressure), measurement methods. Standardization of microclimate factors. The effect of high and low atmospheric pressure on the human body (caisson and altitude sickness). The electrical state of the air environment, the characteristics of the main indicators, the impact on human health. The wind rose, the methodology of its compilation and hygienic assessment.

Hygienic assessment of the complex effect of meteorological factors on the human body. Methods for evaluating the complex effect of meteorological factors on the human body: catathermometry, effective and resultant temperatures. Research methods and hygienic assessment of the thermal state of the human body. The reaction of the human body to the effects of meteorological factors: well-being, efficiency, body temperature, cold test, iodine starch Minor method.

1.5. Hygienic assessment of lighting

The light climate. Natural illumination. The insolation regime and its characteristics (duration, insolated area, room heating) depending on the orientation of buildings to the Sides of the world. The coefficient of natural illumination. A lighting and geometric method for evaluating natural illumination.

Artificial illumination. Artificial light sources (incandescent, halogen, fluorescent, LED). Principles of operation, technical characteristics, advantages and disadvantages of artificial light sources in terms of radiation spectrum, luminous flux, illumination, economic efficiency, service life, safety, environmental friendliness, and disposal features. Requirements for the organization and standards of lighting of

the main premises of the dental clinic. Calculation of artificial illumination depending on lamp power.

1.6. Hygienic assessment of ventilation parameters

Ventilation systems. Organized and unorganized air exchange. Natural and artificial ventilation.

Carbon dioxide as an indirect indicator of the purity of the gas composition of indoor air. Instrumental determination of CO₂ concentration in indoor air. Determination of the air cube, the volume of ventilation, the multiplicity of air exchange.

Features of the organization and standards of air exchange of the main premises of the dental clinic.

2. Nutrition hygiene

2.1. Food as an environmental factor

The impact of nutrition on public health. The laws of rational nutrition. The law of energy adequacy of nutrition. The law of plastic adequacy of nutrition and the balance of nutrients among themselves. The law of biorhythmological adequacy of nutrition, diet and its physiological justification. The law of enzymatic (enzymatic) nutritional adequacy. Violations related to changes in the chemical composition of food products under the influence of modern agricultural technologies. The consequences caused by the use of hormones, antibiotics, and genetic engineering in animal husbandry. Hereditary and acquired enzymopathies. The law of biotic adequacy (harmlessness) of nutrition.

Principles of patient nutrition in healthcare organizations. Hygienic foundations of human dietary nutrition in healthcare organizations. Characteristics of standard diets.

2.2. Hygienic assessment of the energy value and nutrient adequacy of the diet

Criteria for rationing the nutritional needs of the human body, physiological norms of nutrition of the population. Determination of the individual needs of the human body in energy (according to the methodology of the World Health Organization using the coefficient of physical activity) and nutrients (using a balanced megacalory).

Calculation of nutrient intake and energy value of the diet. Hygienic assessment of the adequacy of individual nutrition.

The role of rational nutrition in the prevention of caries and periodontal disease.

Development of educational materials (lectures, presentations, booklets, etc.) for hygienic training and education of patients and the public on the prevention of dental diseases.

2.3. Hygienic assessment of nutritional status

Determination and classification of nutritional status. Criteria for assessing the nutritional status: parameters of physical development (somatometric, somatoscopic, physiometric), physical fitness (speed, strength, endurance), indicators of homeostasis (functioning of the cardiovascular system, respiratory organs, metabolism and energy), higher nervous activity, immune status.

The main types of nutrition status are normal, optimal, excessive and insufficient. Signs and degrees of excessive nutritional status. Insufficient nutritional

status: causes, prevention. Stages of nutrition status assessment. Methods for assessing individual nutrition status. The main indicators used to characterize the state of health in connection with previous actual nutrition. Methods of correction of nutritional status disorders.

2.4. Hygienic assessment of the human body's vitamin supply

The hygienic and biological significance of vitamins. Classification of vitamins. Exogenous and endogenous causes of hypo- and vitamin deficiency. Foods as sources of vitamins. Provitamins. Anti-vitamins. The daily requirement for essential water- and fat-soluble vitamins. The consequences of a lack and excess of vitamins in human nutrition. The norms of vitamin intake. Methods of diagnosis of vitamin availability of the human body. Prevention of vitamin deficiency and hypervitaminosis.

Methods of studying the vitamin value of diets: questionnaire, calculation, weight, chemical-analytical. Methods of studying the vitamin status of the human body: somatometric, physiometric, general clinical, somatoscopic, physiological and biochemical testing, hematological and immunological.

2.5. Prevention of food poisoning

Classification of food poisoning. Food poisoning of microbial etiology: types, clinical manifestations, features of food toxicoinfections. Bacterial toxicosis: staphylococcal toxicosis, botulism. Etiology and prevention of mycotoxicosis and phycotoxicosis. Food poisoning of non-microbial origin: poisoning by poisonous mushrooms and plants, impurities of chemicals. Chemical intoxications associated with anthropogenic pollution of the human environment by xenobiotics. Methods of investigation of food poisoning. Measures for the prevention of food poisoning.

3. Hygienic requirements for working conditions in organizations providing dental medical care

3.1. Hygienic expertise of the dental clinic project

Hygienic requirements for the land plot for the construction of a free-standing dental clinic building: size, zoning of the territory, landscaping. Orientation of the building to the Sides of the world. The possibilities of placing organizations providing dental medical care in residential buildings and public buildings and hygienic requirements for the internal layout of premises. Standards of space per workplace in medical and diagnostic rooms, dental laboratories. Hygienic requirements for the placement of auxiliary equipment (compressor units, sterilization equipment).

Hygienic assessment of the internal layout of the dental clinic and the placement of equipment with the preparation of a conclusion.

3.2. Hygienic requirements for parameters of microclimate, ventilation, lighting in the premises of organizations providing dental medical care

Hygienic requirements for microclimate indicators (temperature, humidity, air velocity) in the main premises of organizations providing dental medical care: medical and diagnostic rooms, dental laboratories.

Hygienic requirements for the gas composition of air and ventilation in the premises of organizations providing dental medical care. The multiplicity of air exchange (volume of supplied and removed air) in separate rooms: medical and

diagnostic rooms, dental laboratories. Recirculation and air conditioning. Autonomous ventilation systems. Indications for installation in premises of local exhaust air extraction from grinding motors, foundry furnace, soldering, polymerization, etc. Air purification from harmful chemicals and odors using photocatalytic filters.

Laminar and turbulent air flows. The system for cleaning the supplied air in the operating rooms, working on the principle of a "clean room". Ultrafine air purification filters (HEPA filters). Hygienic requirements for suspended ceilings. Air pollution by microorganisms. Disinfection of the air in the premises of organizations providing dental medical care with ultraviolet rays. Classification of ultraviolet rays by bactericidal activity. The device of bactericidal lamps and the principle of operation. Ozone and ozone-free bactericidal lamps and indications for their placement. Hygienic requirements for the care of bactericidal lamps. Safety requirements when using ozone bactericidal lamps for indoor air disinfection.

Hygienic assessment of the effectiveness of current ventilation (general and local) in the premises of organizations providing dental medical care.

Hygienic requirements for lighting in the premises of organizations providing dental medical care.

Hygienic requirements for shadowless lamps and the ergonomics of their placement in operating rooms and surgical rooms. Providing a shadowless effect with polygonal reflectors. Local lighting in the premises of organizations providing dental medical care: lamps on dental installations, shadowless lamps at the workplace of a dentist-surgeon, lamps at each workplace of a dental technician. Hygienic requirements for the disposal of light sources used in the premises of organizations providing dental medical care.

Hygienic assessment of artificial illumination, lighting equipment in the premises of organizations providing dental medical care.

3.3. Hygienic requirements for interior decoration and cleaning of premises in organizations providing dental medical care. Hygienic requirements for personal hygiene

Hygienic requirements for wall covering materials: ceramic tiles, glass walls. Hygienic properties of wall panels in operating rooms operating on the principle of «clean rooms».

Hygienic requirements for surface paints. Advantages and disadvantages of latex, acrylic, alkyd paints. Indications for the use of these types of paints in individual premises of organizations providing dental medical care.

Floor coverings: linoleum, porcelain stoneware, self-leveling floors (rubber, polyvinyl chloride). Indications for the use of these materials in separate premises of organizations providing dental medical care.

Requirements for materials for covering walls and floors in offices working with mercury amalgam.

Hygienic requirements for heating equipment. Features of cleaning in the premises of organizations providing dental medical care. The principle of cleaning the premises: from clean to dirty. Daily and general cleaning. Types of cleaning: preliminary, current, final, general. Features of cleaning medical and diagnostic

rooms, dental laboratories. Hygienic requirements for chemicals intended for wet cleaning, their storage conditions. Hygienic requirements for sanitary facilities.

Modern cleaning technologies (leaderless method, etc.). Cleaning equipment, its marking. Washing and disinfection of soft cleaning equipment. Storage conditions for decontaminated cleaning equipment.

Hygienic requirements for personal hygiene of employees of organizations providing dental medical care.

Transient and resident microflora of the skin of the hands. Hygienic hand treatment. Hygienic requirements for detergents and disinfectants. The algorithm of hygienic and surgical hand antiseptics.

Medical gloves. Advantages and disadvantages of latex, neoprene, vinyl, nitrile gloves, indications for use. The algorithm for putting on sterile and non-sterile gloves. The algorithm for removing used gloves from the hands.

Hygienic requirements for medical linen. Properties of nonwovens (spunbond, meltblown) used for the production of medical linen. Hygienic requirements for sterile clothing and everyday sanitary clothing. The frequency of changing sanitary clothes. Organization of washing and disinfection of clothes.

3.4. Hygienic requirements for the treatment of medical waste in organizations providing dental medical care

Hygienic, epidemiological and environmental significance of medical waste. Classification and types of medical waste: safe, epidemiologically dangerous, extremely epidemiologically dangerous, toxic, radioactive.

Organization of collection and temporary storage of medical waste from organizations providing dental medical care. Requirements for packages for separate collection, temporary storage and transportation of waste outside the premises of organizations providing dental medical care. Methods of destruction of medical waste: chemical, thermochemical, incineration, pyrolysis, etc. Methods of recycling metal and plastic waste. Disposal of mercury-containing waste: amalgamation, thermal demercurization, mechanical and chemical method. Methods of destruction and disposal of pharmaceutical waste: incineration, electrochemical destruction. Disposal of radioactive medical waste: self-disinfection, incineration, pressing, cementing.

4. Prevention of the negative impact on human health of environmental factors in organizations providing dental medical care

Harmful production factors of physical, chemical and biological nature in the premises of organizations providing dental medical care. Maximum permissible levels (MPL) and maximum permissible concentrations (MPC) of factors affecting human health. The severity and intensity of the work of medical workers. Burnout syndrome.

Harmful occupational factors when working in medical and diagnostic rooms, dental laboratories.

Mandatory medical examinations and the frequency of their passage by employees of organizations providing dental medical care.

Development of proposals and measures for the prevention of occupational diseases in workers providing dental medical care from the effects of harmful occupational factors.

5. State sanitary supervision

The structure of state sanitary supervision. The main normative legal acts regulating the activities of organizations engaged in sanitary supervision: sanitary norms, rules and hygienic standards; sanitary and hygienic requirements; resolutions.

Administrative responsibility for violation of sanitary legislation and the procedure for conducting the administrative process.

GENERAL HYGIENE CURRICULAR CHART

Section, topic #	Section (topic) name	Number of class hours		Supervised student independent work	Literature	Practical skills	Form of control	
		lectures	practical				of practical skills	of current / intermediate assessment
	Lectures	9	-	6				
1.	Hygiene as medical science. Structure of environment. Health assessment. The concept of risk factors as the basis of modern ideas about disease prevention	1,5	-	-	1			
2.	Physical properties and chemical composition of the atmospheric air	1,5	-	-	1			
3.	Hygienic assessment of the quality of drinking water	-	-	1,5	1			Written work
4.	Food as an environmental factor	1,5	-	-	1			
5.	Prevention of food poisoning	-	-	1,5	1			Written work
6.	Hygienic requirements for parameters of microclimate, lighting, ventilation in the premises of organizations providing dental medical care	-	-	1,5	1			Written work
7.	Hygienic requirements for interior decoration and cleaning of premises in organizations providing dental medical care. Hygienic requirements for personal hygiene	1,5	-	-	1			

8.	Hygienic requirements for the treatment of medical waste in organizations providing dental medical care	1,5	-	-	1			
9.	Prevention of the negative impact on human health of factors of the production environment in organizations providing dental medical care	1,5	-	-	1			Written work
10.	State sanitary supervision	-	-	1,5	1			
	Practical lessons	-	36	-				
1.3.	Hygienic assessment of the quality of drinking water	-	2	-	1-4	Hygienic assessment of the quality of drinking water supplied to a dental department	Solving a situational problem	Tests, interview
1.4.	Hygienic assessment of the impact of microclimate	-	2	-	1-4			Interview, solving situational tasks
1.4.	Hygienic assessment of the complex effect of meteorological factors on the human body	-	2	-	1-4		Solving a situational problem	Interview, account of practical exercise
1.4.	Final lesson on topic «Hygienic assessment of microclimate parameters and the complex effect of meteorological factors on the human body»	-	2	-	1-4			Electronic tests, control work*
1.5.	Hygienic assessment of lighting	-	2	-	1-4	Hygienic assessment of artificial illumination	Solving a situational	Tests, interview

						(general and local) and lighting equipment in a dental department	problem	
1.6.	Hygienic assessment of the impact of ventilation	-	2	-	1-4	Hygienic assessment of the efficiency of current ventilation (general and local) in a dental department	Solving a situational problem	Tests, interview
1.6.	Final lesson on topics: «Hygienic assessment of the impact of microclimate», «Hygienic assessment of microclimate parameters and the complex effect of meteorological factors on the human body», «Hygienic assessment of lighting», «Hygienic assessment of the impact of ventilation»	-	2	-	1-4			Electronic tests, interview*
2.2.	Hygienic assessment of the energy value and nutrient adequacy of the diet	-	2	-	1-4			Tests, interview
2.2.	Calculation of the actual consumption of nutrients and energy value of the diet with menu-layout of food	-	2	-	1-4			Interview, account of practical exercise
2.3.	Hygienic assessment of nutritional status	-	2	-	1-4			Interview, account of practical exercise
2.4.	Hygienic assessment of providing the body with vitamins	-	2	-	1-4			Tests, account of practical exercise
2.4.	Final lesson on topic «Hygiene of nutrition»	-	2	-	1-4			Electronic tests, control work*
2.5.	Prevention of microbial food poisoning	-	2	-	1-4			Interview, account of practical exercise

2.5.	Prevention of non-microbial food poisoning	-	2	-	1-4			Tests, defense of the abstract (report)
3.1.	Hygienic expertise of projects of health care institutions of dental profile	-	2	-	1-4	Assessment of the sanitary and hygienic condition of medical rooms, dental prosthetic workshops, X-ray rooms, auxiliary rooms, etc. in outpatient and inpatient departments	Solving a situational problem	Interview, account of practical exercise
4.	Prevention of the negative impact on human health of factors of the production environment in organizations providing dental medical care	-	2	-	1-4			Tests, defense of the abstract (report), solving a situational problem
4.	Occupational hygiene. Hygienic characteristics of conditions of labor of a dentist	-	2	-	1-4	Hygienic assessment of the degree of exposure to harmful occupational factors (physical, chemical, biological, psychophysiological) and the design of proposals and measures for the prevention of occupational diseases among department employees from their effects. Hygienic treatment of	Written account of practical exercise	Tests, interview

						hands before performing manipulations		
4.	Occupational hygiene. Assessment of the impact of toxic substances and physical factors on human health.	-	2	-	1-4	Development of educational materials (lectures, presentations, booklets, etc.) for the health education of patients and the public in order to prevent dental diseases	Presentation of the developed educational materials	Tests; interview, electronic test. Credit
	Total hours	9	36	6				

*This is a mandatory form of current certification (each student will receive a mark)

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic (relevant):

1. Hygiene : textbook / ed. P. I. Melnichenko. – Moscow : GEOTAR-Media, 2023. – 512 p.

Additional:

2. Situational case tasks of general hygiene : tasks's book / K. V. Bogdanovich [etc.]. – Minsk : BSMY, 2022. – 28 p.

3. General hygiene : lab. workbook / K. V. Bogdanovich [etc.]. – Minsk : BSMY, 2023. – 103 p.

4. **Electronic educational and methodological complex for the academic discipline «General Hygiene»:**

<https://etest.bsmu.by/course/view.php?id=226>.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

The time allocated for independent work can be used by students for:
 preparing for lectures and practical classes;
 preparing for colloquiums, tests and credit in the academic discipline;
 studying the topics (issues) designed for independent work;
 problem solving;
 performing practical tasks;
 taking notes of educational literature.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

APPROXIMATE LIST OF TASKS FOR SUPERVISED STUDENT INDEPENDENT WORK:

preparation of thematic reports, abstracts, presentations;
 taking notes of primary sources (collections of documents, monographs, educational publications, etc.).

FORMS OF CONTROL OF SUPERVISED STUDENT INDEPENDENT WORK:

written work.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competence assessment:
 defense of the abstract (report);
 interview;
 solving situational tasks;
 tests;
 control work;
 account of practical exercise;
 electronic tests.

LIST OF AVAILABLE TEACHING METHODS

Traditional method.

LIST OF PRACTICAL SKILLS

Name of practical skills	Form of practical skills control
1. Hygienic assessment of the quality of drinking water supplied to a dental department	Solving a situational problem
2. Hygienic assessment of artificial illumination (general and local) and lighting equipment in a dental department	Solving a situational problem
3. Hygienic assessment of the efficiency of current ventilation (general and local) in a dental department	Solving a situational problem
4. Assessment of the sanitary and hygienic condition of medical rooms, dental prosthetic workshops, X-ray rooms, auxiliary rooms, etc. in outpatient and inpatient departments	Solving a situational problem
5. Hygienic assessment of the degree of exposure to harmful occupational factors (physical, chemical, biological, psychophysiological) and the design of proposals and measures for the prevention of occupational diseases among department employees from their effects	Written account of practical exercise
6. Hygienic treatment of hands before performing manipulations	Written account of practical exercise
7. Development of educational materials (lectures, presentations, booklets, etc.) for the health education of patients and the public in order to prevent dental diseases	Presentation of the developed educational materials

**PROTOCOL OF THE CURRICULUM APPROVAL
BY OTHER DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum in the academic discipline	Decision of the department, which designed the curriculum (date, protocol #)
1. Radiation Diagnostics and Radiation Therapy	Department of Radiation Diagnostics and Radiation Therapy	No amendments	Protocol #2 of 24.09.2024
2. Disaster Medicine	Military Health Maintenance Organization and Emergency Medicine	No amendments	Protocol #2 of 24.09.2024
3. Internal Diseases	Propaedeutics of Internal Diseases	No amendments	Protocol #2 of 24.09.2024
4. Pediatrics	Propaedeutics of Childhood Diseases	No amendments	Protocol #2 of 24.09.2024
5. Preventive Dentistry	Pediatric Dentistry	No amendments	Protocol #2 of 24.09.2024
6. Public Health and Health Care	Public Health and Health Care	No amendments	Protocol #2 of 24.09.2024

COMPILERS/AUTHORS:

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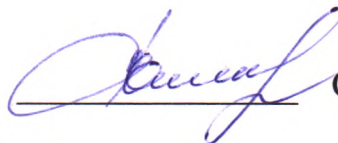
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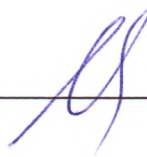
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A.U. Paliashchuk

Curriculum content, composition and the accompanying documents comply with the established requirements.

Head of the Office of Educational Activities of the educational institution «Belarusian State Medical University»

18.11.2024



I.L. Kotovich

Methodologist of the Educational and Methodological department of the Office of Educational Activities of the educational institution «Belarusian State Medical University»

18.11.2024



S.V. Zaturanova