

Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Поверинов Игорь Егорович
Должность: Проректор по учебной работе
Дата подписания: 13.07.2023 22:12:10
Уникальный программный ключ:
6d465b936eef331cede482bde6d12ab98216652f016465d53b72a2eab0de1b7

MINISTRY OF EDUCATION AND SCIENCE OF RUSSIA

**Federal State Budgetary Educational Institution
of higher education**


**«I.N. Ulianov Chuvash State University»
(FSBEI of HE «I.N. Ulianov Chuvash State University»)**

Medical Faculty

Department of Dermatovenereology with a Hygiene Course

«APPROVE»

Vice-rector for Academic Affairs

 I.E. Poverinov

« 13 » 04 2022

**Working programs of the discipline (module)
«Гигиена / Hygiene»**

Direction of training / specialty 31.05.03 Стоматология / Dentistry
Graduate's qualification Врач-стоматолог / Dental Practitioner

Direction (profile) / specialization «Dentistry»

Form of training – очная / intramural

Course – 3

Term – 6

Total academic hours/credit points – 72/2

The year of beginning the training – 2022

The fundamental document for compiling the working program of the discipline (module)
Федеральный государственный образовательный стандарт высшего образования -
специалитет по специальности 31.05.03 Стоматология (приказ Минобрнауки России от
12.08.2020 г. № 984)

Approved by:
associate professor, candidate of biological sciences J.V. Maslova

The working program was approved at the meeting of the Department of
Dermatovenereology with a Hygiene Course, 25.03.2022, protocol № 8
Head of the department N. V. Tolmacheva

Approved by
Dean of the Medical Faculty V.N. Diomidova
Acting Head of the Educational and Methodological Department E.A. Shirmanova

1. The purpose and objectives of training in the discipline (module)

The purpose of the discipline - Objectives of the discipline (module) - acquisition of knowledge by students about natural and anthropogenic factors of the environment that affect human health, and methods of their hygienic assessment.

The objectives of the discipline

1. acquisition of knowledge by students about natural and anthropogenic factors of the environment that affect human health, and methods of their hygienic assessment;
2. study of the basics of the legislation of the Russian Federation, the main regulatory documents on public health protection;
3. formation of a system of thinking among students that allows them to identify cause-and-effect relationships between the impact of environmental factors and changes in the health status of the population in the course of their future professional activities, as well as to identify risk groups for dental diseases;
4. mastering the principles of developing and organizing evidence-based measures for

2. The place of practical training in the structure of the educational program of higher education

The discipline «Гигиена / Hygiene» относится к обязательной части учебного плана refers to the mandatory part in the curriculum of the educational program of higher education (hereinafter referred to as the EP of HE) in the field of training / specialty 31.05.03 Стоматология, direction (profile) / specialization of the program «Dentistry».

Previous academic disciplines (modules) and (or) practices that form the knowledge, skills and abilities necessary for training in the discipline (module):

Пропедевтическая стоматология / Propaedeutic Dentistry

Профилактическая стоматология / Preventive Dentistry

Knowledge, skills and abilities formed as a result of training in a discipline (module) are necessary when teaching in the following disciplines (modules) and (or) practices:

Терапевтическая стоматология / Therapeutic Dentistry

Дерматовенерология / Dermatovenereology

3. Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes

Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes

| Code and name of the competence | Code and name of the competence achievement | Descriptors for the indicator of competence achievement (learning) |
|--|--|--|
| ОПК-4 Способен проводить и осуществлять контроль эффективности мероприятий по профилактике, формированию здорового образа жизни и санитарно-гигиеническому просвещению населения / He/she is able to conduct and monitor the | ОПК-4.1 Способен анализировать приверженность пациента здоровому образу жизни / He/she is able to analyze the patient's adherence to a healthy lifestyle | To know the basic principles of primary prevention of diseases, the hygienic characteristics of environmental factors and the mechanisms of their effect on the human body To be able to analyze the causal relationship between the impact of adverse environmental factors and changes in the population health state |

| | | |
|---|---|--|
| effectiveness of measures for prevention, formation of a healthy lifestyle and sanitary and hygienic education of the population | | To have skills of modern methods and skills for the development and organization of scientifically based measures for the primary prevention of diseases among the population, aimed at maintaining and strengthening health and including the formation of a healthy lifestyle |
| ОПК-4 Способен проводить и осуществлять контроль эффективности мероприятий по профилактике, формированию здорового образа жизни и санитарно-гигиеническому просвещению населения / He/she is able to conduct and monitor the effectiveness of measures for prevention, formation of a healthy lifestyle and sanitary and hygienic education of the population | ОПК-4.2 Способен планировать мероприятия, направленные на профилактику заболеваний и формирования здорового образа жизни / He/she is able to plan activities aimed at prevention of diseases and formation of a healthy lifestyle | Ability and willingness to use social-hygienic techniques of collecting and medico-statistical analysis of information on indicators of population health. Be able to analyze data on population health indicators in order to identify possible adverse social and hygienic factors of the environment. Master the basic methods of collecting and medico-statistical analysis of information on health indicators of the population. |
| ОПК-4 Способен проводить и осуществлять контроль эффективности мероприятий по профилактике, формированию здорового образа жизни и санитарно-гигиеническому просвещению населения / He/she is able to conduct and monitor the effectiveness of measures for prevention, formation of a healthy lifestyle and sanitary and hygienic education of the population | ОПК-4.3 Способен проводить и осуществлять контроль эффективности мероприятий по профилактике, формированию здорового образа жизни и санитарно-гигиеническому просвещению населения / He/she is able to conduct and monitor the effectiveness of measures for prevention, formation of a healthy lifestyle and sanitary-hygienic education of population | To know the basic principles of hygienic training and education of the population. To be able to analyze data on population health indicators in order to identify possible unfavorable social and hygienic factors of the environment To have skills of the basic methods of collecting and medical and statistical analysis of information on indicators of dental morbidity |

4. Structure, scope and content of the discipline (module)

Educational activities in the discipline (module) are carried out:

- in the form of students' face-to-face work with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (hereinafter - contact work);

- in the form of students' independent work.

Face-to-face work can be classroom-based, extramural, as well as it can be conducted in an electronic information and educational environment (EIEE).

Learning sessions in the discipline (module) and interim assessment of students are

conducted in the form of face-to-face work and in the form of students' independent work.

During learning sessions in the discipline (module) face-to-face work includes: lecture-type classes, seminar-type classes and (or) group consultations, and (or) individual work of students with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (including individual consultations).

Legend:

Lec – lectures, Lab – laboratory work, Pr – practical classes, ICW – individual face-to-face work, IW – independent work.

4.1. Content of the discipline (module)

| Section name | The section's content | Formed competences | Competence achievement indicator |
|--|--|--------------------|----------------------------------|
| The role of hygienic science in providing preventive health care tasks | Introduction to hygiene. Hygiene as the main preventive discipline. The place and importance of general hygiene in the professional activities of a physician. History of hygiene development. Primary prevention of diseases. | | |
| Environment and its impact on the human body. Hygienic assessment of the atmosphere and biosphere. | Atmosphere as part of the biosphere. Hygienic value of physical properties of air. Complex effect of factors of the air environment on the body. | | |
| | Hygienic assessment of the physical parameters of the air. Influence of microclimatic conditions on the human body | | |
| | Solar radiation and its role in providing life on the Earth. Biological effect of solar radiation. Use for medical and preventive purposes | | |
| | Climate and weather, their impact on the human body. | | |
| Environment and its impact on the human | Hygienic assessment of insolation regimen, natural | | |

| | | | |
|--|---|--|--|
| body. Hygienic assessment of the atmosphere and biosphere. | and artificial illumination of premises (on the example of medicopreventive and educational institutions). | | |
| Environment and its impact on the human body. Hygienic assessment of the atmosphere and biosphere. | Pollution of atmospheric air as a social and environmental-hygienic problem. | | |
| Water supply hygiene | <p>Hydrosphere as part of the biosphere. Physiological and hygienic value of water. Classification and comparative characteristics of water supply sources. Prevention of diseases associated with poor quality water.</p> <p>Hygienic assessment of drinking water and sources of water supply. Selection of the source of water supply.</p> <p>Principles and methods for improving water quality.</p> <p>Soil as an environmental factor and its role in the transmission of endemic, infectious and parasitic diseases.</p> | | |
| Nutrition as a factor of health preservation and its promotion | <p>Laws and principles of rational nutrition. The importance of individual components of food in ensuring the vital activity of the body.</p> <p>Nutrition of the population and its role in ensuring health and optimal life expectancy of a person. Modern scientific concepts of nutrition.</p> <p>Physiological norms of nutrition. Physiological needs of the body in energy and nutrients.</p> <p>The procedure for calculating the daily ration from the menu layout</p> | | |
| Nutrition as a factor of | Requirements for food | | |

| | | | |
|---|---|--|--|
| health preservation and its promotion | rations. Hygienic assessment of the full nutrition of the menu layout. | | |
| Nutrition as a factor of health preservation and its promotion | Alimentary-dependent diseases and their prevention. | | |
| | Human food poisoning and their prevention | | |
| | Sanitary-hygienic examination of food products. Hygienic requirements for planning and operating mode of the nutrition department | | |
| Hygiene of children and adolescents | Hygienic principles for ensuring normal development and high level of health of children | | |
| Work hygiene and health protection of workers. | Labor as an integral part of human existence and its impact on health. | | |
| | Radiation safety when working with radioactive substances and sources of ionizing radiation | | |
| | Hygienic assessment of industrial poisons | | |
| Hygiene of medical and preventive organizations. Dental clinics | Hygienic requirements for planning and building a hospital site. | | |
| | Professional hygiene of dental doctors. | | |
| | Systemic ecological and hygienic training and education is the methodological basis of a healthy lifestyle. | | |

4.2. Scope of the discipline and types of academic work

| Forms of control and types of academic work | Labor intensity of the discipline (module) | |
|---|--|-------|
| | 6 | total |
| 1. Face-to-face work: | 48,2 | 48,2 |
| In-class learning in total, including: | 48 | 48 |

| | | |
|--|----------------|------|
| Лекционные занятия (Лек) | 16 | 16 |
| Лабораторные занятия (Лаб) | 32 | 32 |
| Индивидуальная контактная работа (ИКР) | 0,2 | 0,2 |
| 2. Independent work of the student: | 23,8 | 23,8 |
| 3. Intermediate certification (exam) (зачет) | 3а | 3а |
| Total: | academic hours | 72 |
| | credit units | 2 |

| № item | The section's (theme's) name | Face-to face work, including in the electronic information and educational environment, academic hours | | | | IW, academic hours | Total, academic hours |
|--------|--|--|-----|------|-----|--------------------|-----------------------|
| | | Lect. | Pr. | Lab. | ICW | | |
| | The role of hygienic science in providing preventive health care tasks | | | | | | |
| 1 | Introduction to hygiene. Hygiene as the main preventive discipline. The place and importance of general hygiene in the professional activities of a physician. History of hygiene development. Primary prevention of diseases. | 2 | | | | | 2 |
| | Environment and its impact on the human body. Hygienic assessment of the atmosphere and biosphere. | | | | | | |
| 2 | Atmosphere as part of the biosphere. Hygienic value of physical properties of air. Complex effect of factors of the air environment on the body. | 2 | | | | | 2 |
| 3 | Hygienic assessment of the physical parameters of the air. Influence of microclimatic conditions on the human body | | | 2 | | 1 | 3 |

| | | | | | | | |
|----|---|---|--|---|--|-----|-----|
| 4 | Solar radiation and its role in providing life on the Earth. Biological effect of solar radiation. Use for medical and preventive purposes | 2 | | | | | 2 |
| 5 | Climate and weather, their impact on the human body. | | | | | 1 | 1 |
| 6 | Hygienic assessment of insolation regimen, natural and artificial illumination of premises (on the example of medicopreventive and educational institutions). | | | 2 | | 1,8 | 3,8 |
| 7 | Pollution of atmospheric air as a social and environmental-hygienic problem. | | | 2 | | 1 | 3 |
| | Water supply hygiene | | | | | | |
| 8 | Hydrosphere as part of the biosphere. Physiological and hygienic value of water. Classification and comparative characteristics of water supply sources. Prevention of diseases associated with poor quality water. | 2 | | | | | 2 |
| 9 | Hygienic assessment of drinking water and sources of water supply. Selection of the source of water supply. | | | 2 | | 1 | 3 |
| 10 | Principles and methods for improving water quality. | | | 2 | | | 2 |
| 11 | Soil as an environmental factor and its role in the transmission of endemic, infectious and parasitic diseases. | | | | | 1 | 1 |
| | Nutrition as a factor of health preservation and its promotion | | | | | | |
| 12 | Laws and principles of rational nutrition. The importance of individual components of food in ensuring the vital activity of the body. | | | 3 | | 1 | 4 |
| 13 | Nutrition of the population and its role in ensuring health and optimal life expectancy of a person. Modern scientific concepts of nutrition. | 2 | | | | 1 | 3 |
| 14 | Physiological norms of nutrition. Physiological needs of the body in energy and nutrients. | | | 3 | | | 3 |

| | | | | | | | |
|----------------------|---|----|--|----|-----|------|-----|
| 15 | The procedure for calculating the daily ration from the menu layout | | | 3 | | 2 | 5 |
| 16 | Requirements for food rations. Hygienic assessment of the full nutrition of the menu layout. | | | 2 | | 3 | 5 |
| 17 | Alimentary-dependent diseases and their prevention. | | | | | 3 | 3 |
| 18 | Human food poisoning and their prevention | 2 | | | | | 2 |
| 19 | Sanitary-hygienic examination of food products. Hygienic requirements for planning and operating mode of the nutrition department | | | 2 | | 1 | 3 |
| | Hygiene of children and adolescents | | | | | | |
| 20 | Hygienic principles for ensuring normal development and high level of health of children | | | 2 | | 1,8 | 3,8 |
| | Work hygiene and health protection of workers. | | | | | | |
| 21 | Labor as an integral part of human existence and its impact on health. | 2 | | | | 1 | 3 |
| 22 | Radiation safety when working with radioactive substances and sources of ionizing radiation | | | 2 | | | 2 |
| 23 | Hygienic assessment of industrial poisons | | | 2 | | 1 | 3 |
| | Hygiene of medical and preventive organizations. Dental clinics | | | | | | |
| 24 | Hygienic requirements for planning and building a hospital site. | 2 | | | | 1,2 | 3,2 |
| 25 | Professional hygiene of dental doctors. | | | 3 | | | 3 |
| 26 | Systemic ecological and hygienic training and education is the methodological basis of a healthy lifestyle. | | | | 0,2 | 1 | 1,2 |
| Total academic hours | | 16 | | 32 | 0,2 | 23,8 | 72 |

4.3. Summary of the discipline (module), structured by sections (topics)

Раздел 1. The role of hygienic science in providing preventive health care tasks

Тема 1. Introduction to hygiene. Hygiene as the main preventive discipline. The place and importance of general hygiene in the professional activities of a physician. History of hygiene development. Primary prevention of diseases.

Лекционное занятие. 1. The subject and content of hygiene.

Hygiene as the main preventive medical discipline, aimed at preserving and improving the health of the population. Tasks of hygiene. Factors forming the health of the population. Environment and public health. Connection of hygiene with ecology and other sciences. The place and importance of general hygiene in the professional activities of a physician. Methods of hygienic research. Establishment of cause-effect relationships between the state of the population health and the impact of environmental factors. Basics of the RF legislation in the field of environmental protection and public health.

2. History of formation and development of hygiene.

Stages of the historical development of hygienic science. The Empirical period. Hygienic knowledge in the Ancient World, in the era of Feudalism. Period of scientific and experimental hygiene. Development of domestic hygiene. The most important representatives of hygienic science in Russia.

3. Primary prevention as the main direction of domestic health care.

Objectives of prevention. Levels of medical prevention. Types of prevention: primary, secondary, tertiary. Principles and directions of primary hygiene prevention. Sanitary-epidemiological service of the Russian Federation and its role in the health promotion of the population.

Раздел 2. Environment and its impact on the human body. Hygienic assessment of the atmosphere and biosphere.

Тема 2. Atmosphere as part of the biosphere. Hygienic value of physical properties of air. Complex effect of factors of the air environment on the body.

Лекционное занятие. 1. Structure and functions of the atmosphere.

2. Hygienic value of temperature, humidity, air mobility.

Chemical and physical thermoregulation. Complex effect of the air medium on thermoregulation. The influence of the microclimate on health and efficiency. Types of microclimate: comfortable, overheating, cooling. Normalization of micro-climate parameters of different rooms. The influence of microclimate on the human body. Rose of the wind and its use in hygienic practice.

3. Influence of atmospheric pressure on the body.

Тема 3. Hygienic assessment of the physical parameters of the air. Influence of microclimatic conditions on the human body

Лабораторное занятие. Determination and hygienic assessment of air temperature, absolute and relative humidity, atmospheric pressure, air velocity. Methods of total estimation of the effect of microclimatic conditions on the well-being of a person. The determination of the equivalent- effective temperature in the classroom and its hygienic evaluation. Methods for determining thermal radiation. Interactive analysis of the received data.

Тема 4. Solar radiation and its role in providing life on the Earth. Biological effect of solar radiation. Use for medical and preventive purposes

Лекционное занятие. 1. Composition of the solar spectrum.

Composition of the solar spectrum. Light climate. The biological effect of infrared radiation: thermal, photochemical. Use for therapeutic purposes. Biological effect of visible light: the effect on the visual analyzer. The biological effect of the ultraviolet part of the solar spectrum as a function of wavelength (general stimulating, anti-cancer, bactericidal,

erythemic-tan).

Тема 6. Hygienic assessment of insolation regimen, natural and artificial illumination of premises (on the example of medicopreventive and educational institutions).

Лабораторное занятие. Evaluation of the natural lighting of rooms and the type of insolation regime. Hygienic requirements for natural and artificial illumination of premises of different functional purposes. Determination of indices of natural and artificial illumination of premises and their hygienic assessment (light factor, KEO, depth of installation, lighting angles, calculation of the required number of luminaires). Lux meter. Types of artificial lighting sources, their hygienic characteristics. Characteristics of light-protective fixtures.

Тема 7. Pollution of atmospheric air as a social and environmental-hygienic problem.

Лабораторное занятие. Methods for studying the chemical composition of air, dust and bacterial contamination of the air and their hygienic assessment.

Hygienic characteristics of the air environment of enclosed spaces. Carbon dioxide as an integral indicator of air pollution by products of human metabolism, its MPC. Assessment of the risk of non-carcinogenic effects of chemicals. Determination of concentrations of sulfur dioxide, carbon dioxide and ammonia in the air.

Bacterial air pollution. Sanitary-indicative organisms. Phases of microbial aerosol. Methods for determining the dust and bacterial contamination of air. Solution of situational tasks

Раздел 3. Water supply hygiene

Тема 8. Hydrosphere as part of the biosphere. Physiological and hygienic value of water. Classification and comparative characteristics of water supply sources. Prevention of diseases associated with poor quality water.

Лекционное занятие. 1. Hydrosphere as part of the biosphere.

Physiological and sanitary-hygienic value of water. The role of water in the spread of infectious and parasitic diseases of man. The concept of aquatic epidemes.

2. Diseases of non-infectious nature associated with the characteristics of the natural, chemical composition of water. Endemic diseases.

3. Ecological and hygienic problems of the hydrosphere, caused by anthropogenic pollution.

The problem of pollution of reservoirs by chemical impurities of anthropogenic origin. The main sources of pollution of natural waters. Influence of pollution of water sources with toxic substances on public health. Self-purification of reservoirs. Sanitary protection of reservoirs. Zones of sanitary protection.

4. Requirements for the choice of the water supply source.

Classification and comparative characteristics of water supply sources. The choice of water sources, taking into account their sanitary reliability. The concept of saprobity Normalization of the qualitative composition of drinking water. Basic normative documents.

Тема 9. Hygienic assessment of drinking water and sources of water supply. Selection of the source of water supply.

Лабораторное занятие. Students make a conclusion about the quality of water and the conditions of use of various sources of water supply based on the results of water analyzes and a survey of water sources. Solution of situational tasks.

Тема 10. Principles and methods for improving water quality.

Лабораторное занятие. Characteristics of water purification methods. The device scheme of a waterpipe. Comparative evaluation of water disinfection methods. Coagulation, sedimentation and filtration of water. Comparative characteristics of fast and slow sand

filters. Method for determining the working dose of aluminum sulphate for water bleaching. Chlorination of water, the concept of chlorine demand and residual chlorine. Choosing a working dose of chlorine for water disinfection. Special methods for improving the quality of drinking water. Using household filters to improve water quality.

Solution of situational tasks.

Раздел 4. Nutrition as a factor of health preservation and its promotion

Тема 12. Laws and principles of rational nutrition. The importance of individual components of food in ensuring the vital activity of the body.

Лабораторное занятие. 1. Rational human nutrition.

Laws and principles of rational nutrition. Characteristics of physiological norms of nutrition. Quantitative and qualitative usefulness of nutrition, a balanced diet. Diet.

2. The importance of macronutrients in human nutrition.

Proteins of animal and vegetable origin, their sources, physiological and hygienic value. High-grade and defective proteins. Amino acid speed. Daily requirement.

Fats of animal and vegetable origin, their sources, role in nutrition. Saturated and polyunsaturated fatty acids. Fat-like substances (cholesterol, phytosterols, phospholipids). Daily requirement.

Simple and complex carbohydrates, their sources, hygienic value. The concept of refined products and "protected" carbohydrates. Dietary fiber, their role in nutrition and digestion.

Тема 13. Nutrition of the population and its role in ensuring health and optimal life expectancy of a person. Modern scientific concepts of nutrition.

Лекционное занятие. 1. The concept of rational and balanced nutrition, developed by A.A. In the blood, providing the body with energy and a balanced relationship in the diet of basic nutritional substances: proteins, fats, carbohydrates, vitamins and minerals.

2. Theory of adequate nutrition by AM Ugolev. Discovery of parietal digestion. Basic theses of the theory. Flows of hormones and bacterial metabolites. The concept of endoecology. The role and composition of the intestinal microflora. Obligate and facultative flora of the human intestine. Functions of normal intestinal microflora. Ballast substances (dietary fibers), their role in providing the digestive function in the organism. Causes of dysbiosis

Тема 14. Physiological norms of nutrition. Physiological needs of the body in energy and nutrients.

Лабораторное занятие. Students determine their own normal body weight by various methods, calculate the value of the basal metabolism, make a chronogram of all types of activity throughout the day. Using the table "Energy costs for different types of work", calculate the daily energy expenditure, the coefficient of physical activity (CFA) and determine the group of physical activity. According to the table "Physiological requirements of the organism in energy and nutrients" physiological norms are found for their group.

Тема 15. The procedure for calculating the daily ration from the menu layout

Лабораторное занятие. Students learn the method of assessing power according to the menu-layout. Composed of a menu for the day, indicating the type and quantity of products used to make meals. Calculate the energy value and qualitative composition of the ration (proteins, fats, carbohydrates, calcium, phosphorus, vitamins A, B1, B2, C), using tabular data.

Тема 16. Requirements for food rations. Hygienic assessment of the full nutrition of the menu layout.

Лабораторное занятие. Students evaluate their diets according to the menu layout:

compliance with caloric value of daily energy expenditure, qualitative composition, diet. Make up the conclusion about the compliance of the actual diet and scientifically substantiated, and give recommendations on its correction.

Тема 18. Human food poisoning and their prevention

Лекционное занятие. 1. Classification of food poisoning rights.

Diseases caused by the intake of poor quality food. Food poisoning of microbial, non-microbial and unstated nature.

2. Food poisoning and the main directions of their prevention.

3. Bacterial toxicosis: botulism and staphylococcal toxicosis. The main on-board prevention.

4. Mycotoxicosis: ergotism, fusarotoxicosis, aflatoxicosis, ochratoxicosis. The main directions of prevention.

Тема 19. Sanitary-hygienic examination of food products. Hygienic requirements for planning and operating mode of the nutrition department

Лабораторное занятие. Sanitary-hygienic examination of food products. Hygienic requirements for the layout and mode of operation of the kitchen.

Definition of the good quality of food. Sanitary-hygienic examination of the quality of meat, flour, bread, milk, biscuits, canned food.

Investigation of food poisoning. The role of the attending physician in the investigation of food poisoning and the organization of preventive measures.

Hygienic requirements for the layout and mode of operation of the kitchen. Personal hygiene of the staff

Раздел 5. Hygiene of children and adolescents

Тема 20. Hygienic principles for ensuring normal development and high level of health of children

Лабораторное занятие. Research and assessment of the health state and physical development of children and adolescents.

Methods for assessing physical development. Somatometric, somatoscopic, physiometric indicators of the evaluation of the physical development of children and adolescents. Estimation of the puberty degree. Methods for evaluating the physical development of children and adolescents. Comprehensive evaluation of the health status of children and adolescents: criteria, health groups, health indicators.

Раздел 6. Work hygiene and health protection of workers.

Тема 21. Labor as an integral part of human existence and its impact on health.

Лекционное занятие. Physical and chemical factors.

1. Physical characteristics of noise. Noise disease: specific and nonspecific manifestations. Normalization of noise in production.

2. Physical characteristics of vibration.

3. Hygienic assessment of industrial poisons.

Тема 22. Radiation safety when working with radioactive substances and sources of ionizing radiation

Лабораторное занятие. Effect of ionizing radiation

The solution of situational tasks on the theme of classes.

Тема 23. Hygienic assessment of industrial poisons

Лабораторное занятие. Familiarization of students with the main parameters characterizing the degree of toxicity and hazard of chemicals in production conditions, with the basic principles of sanitary and epidemiological rules, with the principles of primary prevention in relation to industrial poisons.

Industrial poisons, their classification. General patterns of the action of industrial poisons. Poisoning in production: acute, subacute, chronic. Standardization of industrial poisons in production. The main directions of prevention.

Раздел 7. Hygiene of medical and preventive organizations. Dental clinics

Тема 24. Hygienic requirements for planning and building a hospital site.

Лекционное занятие. 1. Sanitary and hygienic examination of the hospital project.
2. Hygienic requirements for the ward and ward section.
3. Sanitary and hygienic examination of the ward and the ward section (in the conditions of the medical institution).
4. Hygienic requirements for the dental clinics,

Тема 25. Professional hygiene of dental doctors.

Лабораторное занятие. Occupational hazards in the health care system and prevention of their impact on dental doctors.

Features of professional activity of dental doctors of various specialties. Biological, chemical, mechanical, physical, psychogenic, dangerous and harmful factors. Occupational diseases. The main directions of prevention.

The solution of situational tasks on the theme of classes.
Carrying out a role-playing game.

5. Educational technologies

To implement the competence-based approach in the study of the discipline (module), extensive use of active and interactive methods of conducting classes in the educational process is provided:

In accordance with the requirements of the GEF for the implementation of the competence approach in teaching the discipline (module) is provided for wide use in educational process of active and interactive methods of training:

lectures for the presentation of new material can be used in an interactive lesson, namely – analysis of prediction models, discussion of current scientific research;

seminar-type classes - for practical assimilation of the material in order to form solid theoretical knowledge and practical skills in future specialists;

the use of multimedia tools-to improve the quality of perception of the studied material;

supervised homework - to encourage students to work independently;

control works – for the current certification and assessment of the degree of assimilation of the material passed by students.

The components of educational technologies are: lectures, laboratory classes. When conducting lectures, multimedia accompaniment of the entire lecture material is used.

When conducting laboratory classes, the following methods are used::

- oral survey, written testing, interview with students on self-preparation for classes;

- solving situational professionally-oriented tasks on the topic of the lesson;

- protection of laboratory work;

- preparation, presentation and defense of abstracts, reports, presentations;

- demonstration of educational films.

Students receive an individual task for the development of the program and

the plan of classes on ecological and hygienic training of the population, based on the individual characteristics of different age groups. At the same time, it is recommended to pay attention to the need to introduce interactive, game-based forms of learning.

6. Forms of control and types of evaluation materials for the discipline (module)

Intermediate attestation - evaluation of intermediate and final results of training in the discipline (module).

6.1. Sample list of questions for the credit test

1. Hygiene is the main preventive discipline. The subject and tasks of Hygiene. The place and importance of Hygiene in the professional practice of a general practitioner. Research methods used in hygiene.

2. Atmosphere as part of the biosphere. Physical factors of the atmosphere. Hygienic significance. Influence on public health.

3. Complex influence of physical properties of air on the thermoregulation of the body. Kinds of thermoregulation. Ways of heat loss.

4. Epidemiological significance of water. Water as a source of human infectious diseases.

5. Endemic diseases associated with drinking water, causes and ways of their primary prevention.

6. Methods of water disinfection. Their comparative characteristics. Advantages and disadvantages.

7. Special methods for improving water quality. Their brief characteristic. Advantages and disadvantages.

8. Biological effect of ultraviolet radiation. Types of UV radiation, the effect on the human body. Ultraviolet insufficiency and its prophylaxis. Abiogenic effect of UV radiation, its prevention. The concept of biodosis.

9. Physiological and hygienic importance of proteins in nutrition.
10. Physiological and hygienic significance of fats in the diet, the main food sources of fats of animal and vegetable origin.
11. Physiological and hygienic importance of carbohydrates in nutrition. Simple and complex carbohydrates, the main food sources.
12. Importance of vitamin supply in the diet. The role of vitamins.
13. The importance of mineral substances in nutrition. The concept of macro, micro and ultramicroelement.
14. Classification of food poisoning rights.
15. Hygienic assessment of placement and layout of dental clinics.
16. Hospital-acquired infections (nosocomial) and their prevention.
17. The basic hygiene requirements for the placement of dental clinics in inhabited locality, land plot and its development.
18. Hygienic requirements for the set of premises of a dental clinic and dental laboratory. Area, interior layout and decoration.
19. Hygienic requirements for microclimate, ventilation, lighting and heating of the premises of dental clinics.
20. Hygienic requirements for dental equipment and instruments.
21. Concepts about the conditions, severity and intensity of the dentists' work.
22. Rational and irrational working poses of dentists.
23. Harmful physical production factors in the dentists' work (noise, vibration, irrational lighting, uncomfortable microclimate).
24. Biological factors.
25. The main directions of the occupational hazards adverse effects prevention on the health of the dental clinics' medical staff.
26. The basic postulates of healthy rational nutrition.
27. Acceleration of growth and development of children and adolescents.
28. Groups of health.
29. Dental work position and hygiene requirements for shoes.
30. Occupational stress, metabolic and neurohumoral reactions of dental workers.
31. Production dust.
32. Production vibration.

6.2. Sample list of questions for the examination

Exam is not provided

6.3. Suggested themes of term papers (projects)

Course work is not provided

6.4. Suggested themes of term projects

Course projects is not provided

6.5. Suggested topics of calculation and graphic works

Calculation and graphic works is not provided

7. Educational, methodological, informational and software support of the discipline (module)

The electronic catalog and electronic information resources provided by the scientific library of the FSBEI of HE "I. N. Ulianov Chuvash State University" are available at the link <http://library.chuvsu.ru/>

7.1. Regulatory documents, standards and rules

Federal Law of the Russian Federation No. 323-FZ of November 21, 2011 "On the fundamentals of public health protection in the Russian Federation".

2 Federal law of the Russian Federation from 30.03.1999, № 52-FZ "On sanitary and epidemiological welfare of the population".

3. The decree of the RF Government dated 27.10.03 No. 646 "About harmful and (or) dangerous production factors and works at which performance preliminary and periodic medical examinations (surveys), and the procedure for conducting these inspections (surveys)".

7.2. Recommended basic educational and methodological literature

| № item | Name |
|--------|------|
| 1 | |

7.3. Recommended supplementary educational and methodological literature

| № item | Name |
|--------|------|
| 1 | |

7.4. List of resources of the "Internet" information and telecommunication network

| № item | Name | Link to the resource |
|--------|------|----------------------|
| 1 | | |

7.5. Software, professional databases, information and reference systems, electronic educational resources and electronic library systems

Software, professional databases, information and reference systems provided by the Informatization Department of the FSBEI of HE "I.N. Ulianov Chuvash State University" are available for download at the link <http://ui.chuvsu.ru> //. The Unified Register of Russian programs for electronic computers and databases, including freely distributed ones, is available at the link reestr.minsvyaz.ru/reestr /.

7.5.1. Licensed and freely distributed software

Microsoft Windows operating System and/or Unix-like operating system and/or mobile operating system;

Office software packages:

Microsoft Office and/or LibreOffice

and (or) OpenOffice and (or) analogues;

Browsers, including Yandex.Browser.

List of software:

7.5.2. Lists of professional databases and (or) information reference systems and (or) electronic library systems and (or) electronic educational resources

8. Material and technical support of the discipline

Classrooms for lecture-type classes in the discipline are equipped with a teacher's automated workplace consisting of: a personal computer/laptop, multimedia equipment with a screen and (or) SMART interactive whiteboard/SMART TV.

The premises for students' independent work are equipped with computer equipment enabling to connect to the Internet and provide access to the electronic information and educational environment of the FSBEI of HE "I.N. Ulianov Chuvash State University".

| № item | Lesson type | Brief description and characteristics of the composition of installations, measuring and diagnostic equipment, computer equipment and experimental automation tools |
|--------|-------------|---|
| 1 | | |

9. Means of adapting the discipline teaching to the needs of persons with physical conditions

If necessary, persons with physical conditions can be offered one of the following options for perceiving information, taking into account their individual psychophysical characteristics:

- 1) using e-learning and distance learning technologies.
- 2) using special equipment (enginery) and software in accordance with the students' health restrictions in the Training Centers for Persons with Disabilities and Physical Conditions (hereinafter referred to as special needs) available at the university.

In the course of training, if necessary, the following conditions are provided for persons with visual, hearing and musculoskeletal disorders:

- for persons with visual impairments: educational and methodological materials in printed form in enlarged font; in the form of an electronic document; in the form of an audio file (conversion of educational materials into audio format); in printed form in Braille; individual consultations involving a tactile interpreter; individual assignments and consultations.

- for people with hearing impairments: educational and methodological materials in printed form; in the form of an electronic document; video materials with subtitles; individual consultations involving a sign language interpreter; individual assignments and consultations.

- for persons with disorders of the musculoskeletal system: educational and methodological materials in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations.

10. Guidelines for students to perform independent work

The purpose of the student's independent work (IW) is to consolidate the theoretical knowledge gained and to acquire practical skills in using and performing research of algorithms and data structures when designing application software programs. IW includes independent study of educational issues, preparation for laboratory classes, performing calculation and graphic work, preparation for a test and an exam.

The list of questions and tasks for independent work to prepare for laboratory classes is given in the corresponding methodological instructive regulations in the description of each laboratory work.

The list of questions and tasks for independent work to carry out calculation and graphic work is given in the relevant methodological instructive regulations.

Guidelines for students to perform independent work

Topics submitted for independent study should be outlined. The summary briefly outlines the main essence of the educational material, provides the necessary justifications, tabular data, diagrams, sketches, graphs, etc. It is advisable to make a summary entirely on the topic. At the same time, it is always possible to supplement the compiled summary with materials from magazines, newspapers, articles, new textbooks, brochures on the exchange of experience, data from the Internet and other sources. Thus, the synopsis becomes a collection of necessary materials, where the student introduces everything new that he has studied, learned. Such notes are of great value in preparing for classes.

The main stages of self-study of educational issues:

1. Initial familiarization with the material of the studied topic according to the text of the textbook, maps, additional literature.
2. Highlight the main thing in the material under study, making the usual short notes.
3. Selection of reference signals for this text in the form of individual words, certain signs, graphs, and drawings.
4. Thinking through a schematic way of coding knowledge, using a different font, etc.
5. Drawing up a reference summary.

11. Methodological instructive regulations for students studying the discipline (module)

11.1. Methodological instructive regulations for preparing for seminar-type classes

11.2. Methodological instructive regulations for preparing for an examination

11.3. Methodological instructive regulations for preparing for a test

The test is conducted in writing form. The final activity includes test tasks. The wording of the questions coincides with the wording of the list of questions brought to the attention of students one month before the examination session. In the process of preparing for the test, a consultation is organized for all study groups. In order to clarify the assessment, the examiner can ask no more than one or two additional questions that do not go beyond the requirements of the work program. An additional question means a question that is not related to the subject of the test task.

11.4. Methodological instructive regulations for performing computational and graphical

11.5. Methodological instructive regulations for performing a control work

11.6. Methodological instructive regulations for performing a course work (project)

List of additions and changes

| The name and details (if any) of the document attached to the Working Program of the discipline (module) containing the text of updates | Department's decision | | Full name of department head: |
|---|-----------------------|------------|-------------------------------|
| | Date | Protocol № | |
| | | | |