

**MINISTRY OF HEALTH PROTECTION OF UKRAINE**

**ODESSA NATIONAL MEDICAL UNIVERSITY**

**Faculty medical, international**

**Department of Hygiene and Medical Ecology**

**Syllabus educational disciplines  
"Hygiene"**

<b>Amount educational disciplines</b>	General number hours on discipline:  2nd year: 60 hours, 2 credits Semesters: III-IV  6th year: 90 hours, 3 credits Semesters: XI-XII
<b>Days, time, place carrying out educational disciplines</b>	By schedule classes Department of Hygiene and Medical Ecology Odesa, St. Pasteur 11.
<b>Teacher (-and)</b>	Doctor of Medicine z.d.n.t professor Babienko Volodymyr Volodymyrovych Doctor of Medicine docent Kobolev Eugene Volodymyrovych Doctor of Medicine docent Horoshkov Oleg Vitaliyovych Art. teacher Sheikh Ali Dani Husseynovych Senior teacher Shanigin Anton Viktorovich Senior teacher Vatan Maya Mykolayivna
<b>Contact information</b>	References by phones: Sheikh Ali Dani Husseynovych, head teacher of the department 063-765-08-18 Email: shejx.ali@onmedu.edu.ua Eyes consultations: from 14.00 to 17.00 Each Thursday, from 9.00 to 14.00 each saturday Online - consultations: with 16.00 to 18.00 Each Thursday, with 9.00 to 14.00 each saturday by previous by agreement Link on online - consultation is provided to each the group under time classes separately.

## COMMUNICATION

Communication with acquirers will be to be carried out in the classroom (in person).

Under time remote teaching communication is carried out by the platform Microsoft Teams, as well as through email correspondence, Telegram messenger (by created groups for each groups, separately by the old man groups).

### ABSTRACT EDUCATIONAL DISCIPLINES

**Subject study disciplines** – study impact external environment on state health and efficiency people; scientific justification and development hygienic norms rules and measures of sanitation external environment and elimination bad active factors; scientific justification and development hygienic standards, rules and measures of increase resistance of the body to possible harmful influences surrounding environment with purpose improvement health and physical development, increase working capacity

**Prerequisites and post-requisites disciplines (place disciplines in educational program):**

**Prerequisites:** Ukrainian language (by professional direction), foreign language (by professional direction), Latin language and medical terminology, medical biology, medical and biological physics, biological and bio-organic chemistry, anatomy human histology, cytology and embryology, physiology, microbiology, virology and immunology, security life activities; foundations bioethics and biosecurity, pathomorphology, pathophysiology, pharmacology, propaedeutic pediatrics, medical psychology, otorhinolaryngology, ophthalmology, neurology, psychiatry, narcology, dermatology, venereology

**Post-requisites:** hygiene, ecology, internal medicine, surgery, obstetrics and gynecology, infectious diseases, epidemiology and principles of evidence-based medicine, oncology and radiation medicine, traumatology and orthopedics, physiology, anesthesiology and intensive care therapy, emergency and urgent medical help, hygiene and ecology, palliative and hospice medicine, general practice (family medicine).

**The purpose of the discipline:** study of the theoretical foundations of preventive medicine, in particular hygiene, as science, which is basis preventive component professional worldview a specialist the field of training "Medicine"; acquisition by the acquirers of the necessary knowledge, skills, actions, targeted tasks, skills, which answer final goals study educational disciplines in accordance to Standard higher education of Ukraine.

#### **Task disciplines:**

- Laying down theoretical basics hygiene, as science (terminology, laws, methods, principles hygienic normalization. Normative and methodical software application preventive activities) and working out practical skills of: prevention diseases infectious and non-infectious origin in compliance to basics valid legislation of Ukraine;
- Mastering laboratory research methods (organoleptic, physical, chemical, biological, bacteriological methods);
- Use of favorable environmental health factors for strengthening health human hardening of the body etc.

IN as a result study educational disciplines getter should:

**Know:** methods prevention of diseases, methods of laboratory research surrounding environment, normative and legal foundations sanitary Legislation

#### **Be able:**

- Provide appropriate sanitary and hygienic assessment based on laboratory resultsof research factors microclimate

- Evaluate water quality by the results chemical and microbiological of research

**Conduct:**

- assessment of physical development of children and adolescents based on anthropometric results of research
- preventive sanitary and hygienic activities on struggle with VLI
- luxmetry of the level of natural and artificial illumination of different premises appointment
- selection prob water on chemical and microbiological Indexes.

- chemical analysis dairy products on the subject of forgery.
- assessment diet food different aged groups on conformity installed regulations
- chemical, organoleptic, bacteriological research quality products food and water
- prevention professional diseases and poisoning
- Determine bio-dose ultraviolet radiation using instrument Gorbachev

## **DESCRIPTION EDUCATIONAL DISCIPLINES**

### **Forms and methods teaching**

#### **2 course:**

The discipline will be taught in the form of lectures (8 classroom hours); practical classes ( 32 ); organizations independent work acquirer (2 0 hours).

Methods teaching: conversation, solution clinical situational tasks, work with laboratory appliances, solution test tasks

#### **6 course:**

Discipline will be to be taught at form practical classes ( 42 ); organizations independent work acquirer (4 8 hours).

Teaching methods: conversation, solving clinical situational problems, working with laboratory appliances, solution test tasks

### **Content educational disciplines**

#### **Content module 1 . General hygiene issues**

##### **Topic 1. Hygiene as a science, its purpose, tasks, content, methods of hygienic research.**

Preventive orientation of domestic medicine, public and personal, primary, secondary and tertiary prevention, defining priorities. Sanitation as a branch of practical health care activity. Types of sanitation. The importance of knowledge of hygiene for the formation of professional thinking and practical activities of doctors of various specialties. The concept of methodology as a doctrine of scientific knowledge of reality. Basics of hygiene methodology: general philosophical laws and categories, their use in hygiene. Theoretical foundations of hygiene, their essence, the contribution of the most prominent domestic scientists-hygienists for their scientific justification, interpretation and practical use. Methods and techniques of hygienic research, their classification. Methods of studying the state of the environment and its hygienic assessment, methods of studying the impact of the environment on human health. Specific methods of hygienic research.

**Topic 2. Hygiene of populated areas. Housing hygiene. Microclimate, heating, ventilation, natural and artificial lighting, methods of their measurement and hygienic assessment.**

Housing, social and hygienic problems of housing construction in Ukraine and other countries of the world. Types of residential and public buildings. Hygienic characteristics of building and finishing materials.

Hygienic value of physical properties of air (temperature, humidity and speed of movement). Microclimate and its hygienic significance. Types and effects of uncomfortable (cooling and heating) microclimates on human heat exchange and health. Peculiarities of the influence of the heating microclimate on the elderly, their manifestations and prevention. Peculiarities of the influence of the cooling microclimate on the elderly, their manifestations and prevention. Methods and indicators for evaluating the complex effect of the microclimate on the human body (physical modeling, effective-equivalent temperatures, resulting temperatures, and others).

The hygienic value of natural and artificial lighting in residential and public spaces, their hygienic assessment.

Methods of determination and hygienic assessment of dust, chemical and bacteriological air pollution. Basic concepts of types, hygienic importance and indicators of ventilation. Necessary and actual volume and frequency of ventilation, their scientific justification. The concept of an air cube.

Unfavorable physical and chemical factors in the operation of household appliances. Hygienic characteristics of natural and synthetic building and finishing materials and products from them.

Hygiene and biosafety of housing when using modern chemical compounds in everyday life.

City transport and other adverse environmental factors in the conditions of the settlement (noise, vibration, electromagnetic fields, air pollution, excessive psychogenic loads, etc.), their sources and measures to eliminate harmful effects.

Hygienic and socio-hygienic problems of the modern village.

Hygienic features of planning and development of rural settlements. Sanitary and technical equipment of rural housing. Ways to improve the level of communal conditions for rural residents.

State sanitary supervision of the construction of residential and public buildings, their sanitary and technical equipment. Biosafety of residential and public buildings and structures.

**Topic 3 The effect of artificial natural lighting on the body of a healthy and sick person.**

Visible radiation of the Sun, its spectrum, hygienic value, hygienic value of natural lighting of premises of various purposes (residential, educational, industrial, hospital and others).

The effect of lighting on visual functions, the state of the central nervous system and work capacity.

Methods of assessment of natural and artificial lighting of premises.

External and internal factors that affect the level of natural lighting of premises; geometric, light engineering methods of assessing natural lighting of premises.

Hygienic requirements for natural lighting of premises.

**Topic 4 Dust, prevention of diseases caused by dust. Impact of air pollution on the human body. Evaluation methods. Ventilation - as a factor in improving the air environment**

Industrial dust, its classification, prevention of harmful effects.

Indoor air circulation systems. Natural and artificial ventilation. The hygienic value of room ventilation. Types, classification of ventilation of communal and industrial premises.

Ventilation efficiency indicators. Required and actual volume and frequency of ventilation, methods of their determination.

Air conditioning. Principles of building air conditioners.

**Topic 5. Generalizing lesson on theoretical preparation and practical skills of the section "General hygiene issues".**

## **Content module 2. "Water hygiene and water supply"**

### **Topic 6. Physiological, hygienic and epidemiological significance of water.**

#### **Sources of drinking water supply, methods of assessing their quality.**

Water as an environmental factor, its hygienic value. Norms of water consumption depending on the level of communal and sanitary technical improvement of the settlement, living conditions, stay and activity of the person. General hygienic requirements for the quality of drinking water, its organoleptic properties, chemical composition, and epidemic safety.

Sources of water supply, their comparative hygienic characteristics.

Centralized and decentralized water supply systems, their comparative hygienic characteristics.

Scientific substantiation of drinking water quality standards. State sanitary rules and norms of water quality. Methods of water purification: basic (clarification, decolorization and disinfection) and special (de-ironing, softening, demineralization, deodorization, deactivation, fluoridation, defluoridation, and others).

Decentralized water supply system. Hygienic requirements for the arrangement and operation of mine wells and catchment sources. "Rehabilitation" of wells and disinfection of water in them.

The general arrangement scheme of the main water supply facilities from underground and surface sources of water supply. Water supply network and its arrangement. Causes of contamination and infection of water in the water supply network; prevention methods. Sanitary supervision of water supply in populated cities. Zones of sanitary protection of the main water supply facilities. Bioethical aspects and issues of biosafety of water supply sources. The importance of the quality of drinking water in the biosafety of the population.

### **Topic 7. Organoleptic quality indicators of drinking water. Normalization.**

The quality of drinking water can be judged by the analysis of organoleptic properties. These include such indicators as smell, taste, transparency, turbidity, color and temperature. Scent. This parameter can be evaluated on a 5-point scale, where each point reflects the intensity of its manifestation.

### **Topic 8. Epidemiological safety of water supply. Normalization.**

Epidemiological value of water. The role of water and water supply conditions in the spread of infectious diseases. Classification of infectious diseases, the causative agents of which are transmitted by water (cholera, typhoid, dysentery, etc.). The role of sanitary indicator microorganisms for the assessment of the quality of drinking water by bacterial composition (coli index, coli titer, microbial number).

### **Topic 9. Summarizing class on theoretical training and practical skills in water supply hygiene.**

## **Content module 3 . "Food hygiene"**

### **Topic 10. Nutrition and human health. Calculation of individual needs of the body in basic nutrients. Energy expenditure. Nutritional status.**

Nutrition as a factor in population health. The actual state of nutrition of the population of Ukraine. Theories of nutrition, functions of food and types of nutrition. Rational nutrition, its principles. The concept of alimentary diseases, their classification, causes of occurrence, prevalence in Ukraine. Hygienic value of food substances (proteins, carbohydrates, minerals, vitamins), food products in the prevention of diseases. Methods of determining human energy expenditure and needs in basic nutrients. Food biosafety (epidemic safety and sanitary quality of food products).

### **Topic 11. Vitamins. Their physiological significance. Prevention of hypo- and hypervitaminosis.**

Fat-soluble vitamins, their types and importance in the work of the human body. Preparations of fat-soluble vitamins, their importance. Diseases are caused by insufficient or excessive use of fat-soluble vitamins. Prevention of hypo- and hypervitaminosis in the doctor's practice.

Water-soluble vitamins, their types and importance in the work of the human body. Preparations of water-soluble vitamins, their importance. Diseases are caused by insufficient use of water-soluble vitamins. Prevention of hypo- and hypervitaminosis in the doctor's practice.

**Topic 12. The role and importance of products of animal origin in nutrition. Meat, fish, poultry, eggs.**

Nutritional and biological value of meat and meat products. Quantitative and qualitative composition. The effect of proteins and fats of animal origin on the organism of a healthy and sick person. The concept of commodity neighborhood. Diseases transmitted by meat, etc. their prevention with products of animal origin.

**Topic 13. The role and importance of milk and dairy products in nutrition .**

Nutritional and biological value of milk and dairy products. Milk as a source of complete proteins. Food intolerances associated with the use of dairy products. Diseases transmitted through milk. Prevention.

**Topic 14. The role and importance of products of vegetable origin in nutrition.**

Nutritional and biological value of products of plant origin. Quantitative and qualitative composition. The effect of vegetable proteins, fats and carbohydrates on the body of a healthy and sick person. Diseases caused by the use of products of plant origin. Prevention.

**Topic 15. Prevention of food poisoning of microbial and non-microbial origin**

Microbial food poisoning. Food toxic infections, etiology, pathogenesis, prevention. Bacterial toxicoses. Botulism, etiology, pathogenesis, prevention. Staphylococcal toxicosis, etiology, pathogenesis, prevention. Mycotoxicoses, their etiology, diagnosis, clinic, prevention.

Food poisoning of a non-microbial nature, products that are toxic by nature, products that have acquired poisonous properties under storage conditions, products contaminated with toxic substances (xenobiotics) - heavy metals, pesticides, and others.

Food poisoning of unknown etiology, hypotheses of their occurrence, features of the clinic.

The importance of food chains in the migration of toxic and radioactive substances from various environmental objects to the human body. Impact of residual amounts of chemicals in food products on public health.

**Topic 16. A general lesson on theoretical training and practical skills in the examination of food products for bacteriological, chemical, parasitological contamination and signs of adulteration.**

6th course

**Content module 4 . "Occupational hygiene"**

**Topic 17. Work and work - definition of concepts. Basic forms of work activity. Work capacity and its phases. Fatigue and fatigue. Professional burnout syndrome.**

Organization of the workplace. Monotony of work, its prevention. Forced position of the body, tension of individual organs and systems and prevention of diseases related to them. The concept of difficulty and intensity of work. Ergonomics.

Physiological and hygienic features of the work of an elderly person. Indicators of the difficulty and intensity of work of the elderly and their changes during work. The influence of adverse factors of the industrial environment on the rate of aging of the employee.

Hygienic requirements for work regime. Sanitary legislation on labor protection. (KzP of Ukraine). Issues of bioethics and biosafety in occupational hygiene. Diseases associated with a high level of neuropsychological stress, intensification of production processes.

#### **Topic 18. Prevention of diseases caused by physical factors of the production environment.**

Harmful and dangerous factors of working conditions and production environment. The influence of physical factors of the industrial environment (noise, vibration, high-frequency electromagnetic oscillations, etc.) on the health of workers.

"Noisy" disease and its prevention. Vibration disease and its prevention.

Industrial microclimate, the factors that determine it, the impact of an unfavorable microclimate on the health of workers, preventive measures.

Peculiarities of occupational hygiene at reduced and increased atmospheric pressure. Altitude, mountain, decompression, caisson diseases, their prevention.

#### **Topic 19. Prevention of diseases caused by chemical and biological factors of the production environment.**

Chemical factors of the production environment. Carcinogenic, mutagenic, allergenic factors in production, prevention of their harmful effects. Industrial dust, its classification, prevention of harmful effects. Industrial toxicology. Complex, combined, combined action of industrial hazards. Biological factors in production, prevention of their adverse effects. Hygienic requirements for heating, ventilation and lighting of industrial premises. Methods and means of prevention of industrial injuries. Issues of bioethics and biosafety in the prevention of harmful and dangerous factors in the production environment.

#### **Topic 20. Hygienic assessment of the working conditions of the medical staff of various structural divisions of the LPU.**

Professional diseases of doctors of various specialties. Assessment of harmful environmental factors during work in various structural subdivisions of the refinery. Sanitary and hygienic and anti-epidemic regime in a hospital, polyclinic. From the point of prevention. Requirements for the regimen of prevention of respiratory and intestinal diseases among patients and staff during epidemics.

#### **Topic 21. Peculiarities of working conditions of medical workers during emergency situations.**

Study of production processes during emergency situations in order to identify intermediate, final harmful products and develop recommendations for protecting personnel from their adverse effects. Development of sanitary and hygienic measures aimed at preventing occupational diseases and methods of improving working conditions.

#### **Topic 22. Occupational diseases and poisoning and their prevention.**

OCCUPATIONAL poisonings and their prevention.

Occupational hygiene in the main branches of industrial and agricultural production, women and adolescents, the elderly and people with disabilities.

Means of individual protection against harmful and dangerous factors of the production environment (protection of the body, vision, hearing, respiratory organs).



## **Content module 5 . "Radiation hygiene"**

### **Topic 23. Hygienic assessment of the impact of ionizing radiation on the human body.**

#### **Prevention methods.**

The influence of X-rays and  $\gamma$ -radiation, as well as flows of  $\alpha$ - and  $\beta$ -particles (electrons), protons, positrons, neutrons and other charged particles on the human body. Prevention methods.

### **Topic 24. Hygienic assessment of the impact of non-ionizing radiation on the human body.**

#### **Prevention methods.**

Positive and negative effects of ultraviolet, infrared and electromagnetic radiation on the human body. Prevention methods.

### **Topic 25. Hygienic assessment of anti-radiation protection of personnel and radiation safety of patients when using ionizing radiation in medical institutions.**

Closed and open sources of ionizing radiation. Rules for working with them. Methods of protection against ionizing radiation (quantity, distance, time, shielding). Radionuclides as potential sources of internal radiation.

Preventive measures.

### **Topic 26. Radiation pollution of the environment. Hygienic aspects of the accident at the Chernobyl NPP .**

Peculiarities of the accident at the Chernobyl nuclear power plant. General ideas about the concept of the population of Ukraine living in territories with increased levels of radioactive pollution, as a result of the accident at the Chernobyl nuclear power plant. Categories of victims and ways of impact of the accident on health. Medical consequences of the accident at the Chernobyl nuclear power plant for the population of Ukraine

## **Content module 6 . "Hygiene of children and adolescents"**

### **Topic 27. Hygienic methods of assessing the physical development of children and adolescents. Somatometry, somatoscopy and physiometry.**

Methods of assessing the physical development of children and adolescents (method of signal deviations, assessment according to regression scales, complex and centile methods). Methods of assessing the state of health and physical development of organized children's teams. Tasks of the doctor regarding the organization and implementation of health-improving events in children's teams (schools, gymnasiums, lyceums, colleges, boarding schools, vocational training schools, orphanages, preschools, work and recreation camps, extracurricular facilities ). The system of managing the health of children and adolescents. The role of the family doctor in the formation of favorable hygienic conditions for the upbringing and education of the child.

### **Topic 28. Prevention of diseases of children and adolescents caused by the conditions of the educational process.**

Factors and conditions of the environment and educational process affecting the health of 'children and adolescents. Health disorders 'and diseases caused by environmental factors and the conditions of students' stay in educational institutions. Hygienic requirements for the land plot, building and group section of the children's preschool institution. The principle of group isolation and its meaning.

## **Content module 7 . "Fundamentals of prevention of nosocomial infections"**

### **Topic 29. Hygienic assessment of placement and planning of individual structural divisions of the refinery.**

The importance of the optimal hygienic regime of medical and preventive institutions for increasing

the efficiency of treatment of patients, prevention of intrahospital infections, creation of safe working conditions for personnel and their improvement. Modern hospital construction systems (centralized, block, decentralized, pavilion, mixed), their comparative hygienic assessment, prospects for improvement. Hygienic requirements for land plots where hospitals are located.

**Topic 30. Factors contributing to the spread of VLI. Methods and types of disinfection as a factor in the prevention of VLI. CONTROL.**

Classification of VLI. Methods of transfer of VLI in different structural subdivisions of LPU. Specific and non-specific preventive measures. Disinfection, disinsection and deratization.

**Content module 8 . "Medicinal nutrition in medical and preventive institutions"**

**Topic 31. Basics of dietary nutrition in therapeutic, surgical, oncological and gastroenterology departments.**

Peculiarities of nutrition of patients taking into account the peculiarities of pathogenesis, clinical course, stage of the patient's disease, his belonging to the trophic group, physiological state, individual characteristics of the body, optimal ways and methods of entering the body of nutrients, etc. Organization of the medical nutrition system in accordance with Order No. 931 " On improving the organization of medical nutrition and the work of the dietetic system in Ukraine"

**Topic 32. Basics of dietary nutrition in children's hospitals and departments.**

Organization of the medical nutrition system in children's hospitals and departments in accordance with Order No. 931 " On improving the organization of medical nutrition and the work of the dietetic system in Ukraine"

**Topic 33. Nutrition norms of pregnant women and mothers in labor.**

Organization of the medical nutrition system for pregnant women and women in labor in accordance with Order No. 931 " On improving the organization of medical nutrition and the work of the dietetic system in Ukraine"

**Content module 9 . "Military hygiene"**

**Topic 34. Hygienic evaluation of the field placement of military and civilian formations during the war.**

Hygiene of field placement of troops and population. Types of field housing, their hygienic assessment. Placement in populated areas, promising field facilities. The concept of fortification structures, their types, characteristics of the main requirements for them (habitability). Peculiarities of the microclimate and chemical composition of the air in closed fortifications and their effect on the body.

Sanitary supervision of bathhouse and laundry service for the personnel of formations and the injured population.

Sanitary and hygienic control over the maintenance and cleaning of locations of troops and the injured population in field conditions.

Procedure for collecting and burying the dead. Duties of the military medical service.

**Topic 35. Basics of organizing and carrying out sanitary supervision and medical control of water supply for personnel of the Armed Forces of Ukraine in field conditions.**

Responsibilities of various services in the organization of water supply for the personnel of the Armed Forces of Ukraine in field conditions. Organization and exploration of water sources.

Assessment of water quality, report sets and devices, their tactical and technical data, research methods.

Field water supply points, hygienic requirements for their equipment. Cleaning, decontamination,

decontamination of OR and decontamination of water in the field in emergency situations and during wartime.

Sanitary supervision and medical control of water supply for military personnel and the population in field conditions in emergency situations, conditions of use of weapons of mass destruction, presence of water contamination with radioactive substances and poisonous substances.

**Topic 36. Basics of organizing and carrying out sanitary supervision and medical control over the nutrition of personnel of the Armed Forces of Ukraine in field conditions.**

Organization of food for personnel in field conditions. Food standards for personnel and their characteristics. Organization and implementation of sanitary supervision and medical control of personnel nutrition in field conditions. Food in conditions of contamination of the area and objects with highly effective poisonous substances, radioactive substances (RR), in conditions of possible use of weapons of mass destruction (hereinafter - WMD).

Ways and methods of contamination of food by RR, OR and bacteriological means (hereinafter - BZ). Protection during transportation, food storage, preparation, distribution and eating.

Organization and conduct of sanitary-epidemiological examination of food in conditions of possible contamination of RR, OR and BZ. Forces, means and stages of examination. Scope and capabilities of laboratory research. Characteristics of timesheet sets and devices. Research methods used in the examination. Maximum permissible concentrations of RR and OR in products in emergency situations and during wartime. Methods of decontamination and degassing of food and containers.

**Topic 37. Occupational hygiene of the personnel of the Armed Forces of Ukraine during liquidation of the consequences of emergency situations and during wartime.**

A brief description of the main factors that determine working conditions, prevention of their adverse effects on the body. Characteristics of jobs. Air pollution with harmful gases, their composition, impact on the human body.

Sanitary and hygienic measures carried out during the movement and basing of troops, their peculiarities in different climatic conditions (low and high temperatures).

Hygienic features of the work of medical workers of military units and personnel of military medical institutions of the Armed Forces of Ukraine during the liquidation of the consequences of emergency situations and during wartime.

Hygiene of the military labor of tankers. Underwater driving of tanks.

Hygiene of military work in missile troops and artillery, engineering troops. Peculiarities of service conditions, their impact on the human body and measures to protect servicemen.

Hygiene of military work in radio engineering troops. Conditions of military work at radar stations.

Specific and non-specific environmental factors. Hygiene of military work at radio stations.

Hygienic features of the use of personal protective equipment when servicing objects of weapons and military equipment in the Soviet Union, the Air Force, the Navy, and the elimination of fires and the consequences of emergencies.

**List of recommended literature: Main:**

1. Hygiene propaedeutic; textbook: in 2 vols. T1/ V.V., Babienko, A.V. Mokiienko – Odesa:press courier, 2022. 400s.
2. Hygiene propaedeutic; textbook: in 2 volumes T2/ V.V. Babienko, A.V. Mokiienko – Odesa:press courier, 2022. 400s.
3. Hygiene water and water supply populated seats: educational manual/ Babienko V.V. Mokiienko A.V. – Odesa: press courier, 2021, 327 with.

**Additional:**

1. Pharmaceutical hygiene.: study guide/ V.V., Babienko, A.V. Mokienko, O.A. Gruzevskiy – Odesa: press courier, 2022. 324 p.
2. "Hygiene in the practice of a dentist"; educational and methodological manual/ Babienko V.V.Mokienko A.V, Kobolev E.V./ Odesa: Press courier. 2022 180 p.

**EVALUATION**

**Current CONTROL (2nd course):** oral survey, testing, solution situational tasks, assessment activity in class

**Assessment current educational activity on practical occupations :**

1. Assessment theoretical of knowledge with topics occupation:
  - methods: poll, solution situational tasks
  - maximum assessment - 5, minimal rating – 3, unsatisfactory rating – 2.
2. Rating practical skills with topics occupation:
  - methods: assessment correctness implementation practical skills
  - maximum assessment - 5, minimal rating – 3, unsatisfactory rating – 2.

Rating by one practical occupation is arithmetic mean by by all components and can have only the whole value (5, 4, 3, 2), which rounded up by method statistics

**Criteria current assessment on practical occupation (for 2 and 6 course)**

<b>Rating</b>	<b>Criteria assessment</b>
Perfectly "5"	The acquirer is fluent in the material, takes an active part in the discussion and solving a situational problem, confidently demonstrates practical skills under time laboratory research, expresses own opinion with topics occupation, demonstrates clinical thinking.
Fine "4"	Getter fine owns material, takes participation in discussion and solutions situational tasks, demonstrates practical skills under time laboratory and of research with by some by mistakes, expresses own opinion with topics occupation, demonstrates clinical thinking.
Satisfactorily "3"	Getter not enough owns material, unsure takes participation in discussed and solutions situational tasks, demonstrates practical skills laboratory of research with essential mistakes
Unsatisfactorily "2"	Getter not owns material, not takes participation in discussed and solving a situational problem, does not demonstrate practical skills laboratory of research

**Final CONTROL on 2 courses: test**

Applicants of higher education who do not have academic debt and average mark whose is not lower 3.0 (120 points)

Test is conducted in acquirers education on to the last occupation with educational components by oral poll and testing It is evaluated by two-point scale:

- the grade "passed" is issued to the applicant who has completed the educational work program components, does not have academic debt, passed the credit from the educational component; level competence – high (creative);
- rating "not counted" is displayed acquirer which did not perform work program educational component, has academic debt (average score lower than 3.0 (120 points) and/or omissions classes); level competence – low (receptive- productive) Final CONTROL on 6 courses : differential test

Differential test is conducted on to the last occupation with educational components by interviews with acquirer

The applicant is admitted to the differential examination on the condition that the requirements of the educational program are met if for the current educational activity he received at least 3.00 points and passed the test CONTROL by tests "Step-2" not less than on 90% (50 tasks).

Test CONTROL is conducted in Educational and production complexes innovative technologies of learning, informatization and continuous education of ONMedU on the last day of education components.

### **Assessment results teaching under time final control**

<b>Content assessed activity</b>	<b>Number points</b>
Solution sanitary and hygienic tasks	1
Answer on theoretical question.	2
Rating data laboratory of research	1
Practical task by by type OSKI.	1

### **Criteria assessment results teaching acquirers education on differential offset**

<b>Rating</b>	<b>Criteria assessment</b>
Perfectly "5"	The learner completed all the tasks correctly, accurately and completely, clearly and logically answered on delivered question. Thoroughly and comprehensively knows content theoretical questions, free owns professional and scientific terminology. Thinks logically and constructs an answer, uses it freely acquired theoretical knowledge during the analysis of practical tasks. When solving correctly interpreted the results of clinical, laboratory and of instrumental studies, answered all the questions correctly question and convincingly substantiated own point vision could offer and justify an alternative version of the decision on individual issues. At solutions practical task by by type OSKI right demonstrated the implementation of practical skills, followed exactly algorithm their implementation.

<p>Fine "4"</p>	<p>Getter education enough full executed all task, clearly and logically answered the questions. He knows the content deeply and comprehensively theoretical questions, owns professional and scientific terminology. Logically thinks and builds answer, uses acquired theoretical knowledge at analysis practical tasks But at teaching some questions not enough sufficient depth and arguments, allows insignificant errors, which are eliminated by themselves acquirer When on them indicate teacher. At solutions tasks assumed non-essential errors or inaccuracies in interpretations results clinical, laboratory and instrumental research, without essential errors answered on all delivered question, full substantiated own point vision but the proposal of an alternative variant of the cause and difficulty. At solutions practical task by type OSKI allowed insignificant errors in algorithms and techniques implementation skills, corrected by indication the teacher</p>
<p>Satisfactorily "3"</p>	<p>The student of education partially completed all tasks, answers to additional and leading questions have a vague, ambiguous character. Owns the main volume theoretical knowledge, inaccurate uses professional and scientific terminology Feels significant difficulty at</p>
	<p>construction independent logical answers in application theoretical of knowledge at analysis practical tasks IN answers have place essential errors. At solutions tasks with mistakes interpreted the results clinical, laboratory and instrumental research, not knew individual details, allowing for inaccuracies in the answers to questions, not right enough substantiated his answers and interpreted formulation, felt difficulty in performance tasks and offers alternative options. At practical solutions tasks for by type OSKI assumed significant errors in algorithms and techniques implementation skills</p>
<p>Unsatisfactorily "2"</p>	<p>Getter education not executed task, in the majority cases not gave answers on additional and leading question. Not mastered basic amount theoretical knowledge, revealed a low level of professional knowledge and scientific terminology. Answers on question is fragmentary, inconsistent, illogical, cannot apply theoretical knowledge when analyzing practical tasks. There is a considerable amount in the answers gross mistakes. When solving the problem, he could not interpret the received information results of laboratory and instrumental research, answer to asked questions, or made significant mistakes in the answers; could not justify his decisions or did it not convincingly. Alternative ones did not offer options. When solving a practical task by type OSKI not demonstrated or assumed rough errors and errors in algorithms and techniques implementation skills</p>

### **INDEPENDENT WORK EARNERS HIGHER EDUCATION**

Independent work provides preparation to Each practical occupation.

## POLICY EDUCATIONAL DISCIPLINES

Policy of deadlines and rearrangement:

- skips classes with disrespectful reasons are being worked out by schedule another teacher skips with respectable reasons working out by individual schedule with permission dean's office

Policy regarding academic integrity:

Mandatory is compliance academic integrity acquirers, and exactly:

- independent performance of all kinds works, tasks, forms control, provided for working by the given program educational disciplines;
- link on sources information in case using ideas development, statements information;
- compliance with norms legislation about author's right i adjacent rights;
- providing a reliable information about the result educational (scientific) activities, used methods of research and sources information

Unacceptable in educational activity for participants educational process is:

- using family or official connections to obtain a positive or higher evaluations when conducting any form of monitoring of learning outcomes or benefits in scientific work;
- the use of prohibited auxiliary materials during control measures or technical means (cheat sheets, notes, micro-earphones, telephones, smartphones, tablets etc);
- passage procedures control results teaching pretextual persons

Students may be prosecuted for violating academic integrity to such academic responsibility:

- decrease results assessment control work, evaluations on occupation offset etc;
- repeated passage assessment (control work, offset etc);
- appointment additional control measures (additional individual task, control work, tests, etc.);
- carrying out additional checks others works authorship violator

Policy of visiting and delays:

Form clothes: medical robe Equipment: notebook, pen

State health: applicants are ill with acute infectious diseases, including respiratory diseases, to occupation not are allowed

Getter, which was late on occupation, may be on him present, but if in magazine teacher put "nb", he should him work out in general of order

Using mobile devices: Mobile devices may be applied acquirers with permission teacher, if they are needed for implementation task.

Behavior in audience:

The behavior of applicants and teachers in classrooms should be working and calm, strictly comply with the rules established by the Regulations on Academic Integrity and ethics academic relationship in Odesa national medical university, in compliance to of the Code academic ethics and relationship university community of Odesa national medical university, Provisions about prevention and detection of academic plagiarism in research and educational work of university graduates education, scientists and teachers of Odesa national medical university