

**MINISTRY OF HEALTH PROTECTION OF UKRAINE  
ODESSA NATIONAL MEDICAL UNIVERSITY**

**Faculty of medicine, international**

**Department of Hygiene and Medical Ecology**

**Syllabus of the academic discipline  
" Ecological Medicine "**

<b>Scope of the academic discipline</b>	Total number of hours per discipline: 90 hours, 3 credits Semesters: V II 4th year of study.
<b>Days, time, place of educational discipline</b>	According to the schedule of classes. Department of Hygiene and Medical Ecology Odesa, st. Pasteur 11.
<b>Teacher(s)</b>	Professor Babienko Volodymyr Volodymyrovych, Doctor of Medicine, Doctor of Science in Technology Doctor of Medicine Associate Professor Kobolev Yevgeny Volodymyrovych Doctor of Medicine Associate Professor Horoshkov Oleg Vitaliyovych Art. teacher Sheikh Ali Dani Husseynovych Senior teacher Shanygin Anton Viktorovych Senior teacher Vatan Maya Mykolaivna Anastasia Rozhnova's assistant
<b>Contact Information</b>	Help by phone: Sheikh Ali Dani Husseynovych, head teacher of the department 063-765-08-18 E-mail: shejx.ali@onmedu.edu.ua Face-to-face consultations: from 2:00 p.m. to 5:00 p.m. every Thursday, from 9:00 a.m. to 2:00 p.m. every Saturday Online consultations: from 4:00 p.m. to 6:00 p.m. every Thursday, from 9:00 a.m. to 2:00 p.m. every Saturday by prior arrangement. The link to the online consultation is provided to each group during classes separately.

## **COMMUNICATION**

Communication with applicants will be conducted in the classroom (face-to-face).

During distance learning, communication is carried out through the Microsoft Teams platform, as well as through e-mail correspondence, Telegram messenger (through the created groups for each group, separately through the head of the group).

## **ABSTRACT OF THE ACADEMIC DISCIPLINE**

Subject study of the discipline - environmental medicine, human impact on ecology and the impact of human-polluted ecology on the development of diseases.

Prerequisites and post-requisites of the discipline (place of the discipline in the 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 bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, microbiology, virology and immunology, life safety; basics of bioethics and biosafety, pathomorphology, pathophysiology, pharmacology, propaedeutics of pediatrics, medical psychology, otorhinolaryngology, ophthalmology, neurology, psychiatry, narcology, dermatology, venereology.

Postrequisites: hygiene and ecology, internal medicine, surgery, obstetrics and gynecology, infectious diseases, epidemiology and principles of evidence-based medicine, oncology and radiation medicine, traumatology and orthopedics, phthisiology, anesthesiology and intensive care, emergency and emergency medical care, hygiene and ecology, palliative and hospice medicine, general practice (family medicine).

The purpose of the discipline: a detailed study of the fundamentals of the structure and functioning of natural and man-made systems using quantitative assessment methods.

Tasks of the discipline:

The main tasks of the study of the discipline " Ecological medicine " are assimilation by the acquirers of knowledge :

1. Study of the peculiarities of the organization of life in connection with anthropogenic influence on natural systems.
2. Creation of scientific foundations for rational exploitation of biological resources.
3. Forecasting changes in nature that occur as a result of the influence of human activity.
4. Preservation of human habitat.

As a result of studying the academic discipline, the applicant must:

Know:

- Methods of researching the state of the environment and the laws of its influence on humans, in particular and society in general, as well as the peculiarities of the reverse reactions of the environment response to human activity

Be able:

- To study the state of health of people and establish the features of dynamic changes from its main indicators in natural-historical, socio-economic and physiological-hygienic aspects;
- To study the impact of certain environmental factors on the health and vital activities of certain populations; To study the processes of preservation and restoration of health and social and labor potential of the population;
- To predict the state of health of future generations;
- Analyze global and regional problems of human ecology;
- To develop a way to increase the level of health and social and labor potential of certain sections of the population;
- Conduct anthropoecological monitoring - introduction of an effective system of monitoring changes in people's life processes in connection with the impact of various environmental factors on them ;
- Compilation of medico-geographical maps reflecting the territorial differentiation of population diseases associated with the deterioration of the environment ;

- The definition is scientifically based and the meaning is marginal permissible man-made loads on the human body, etc

## **DESCRIPTION OF THE ACADEMIC DISCIPLINE**

Forms and methods of education

The discipline will be taught in the form of seminar classes (30 hours); organization of the applicant's independent work (60 hours).

Teaching methods: conversation, solving clinical situational problems, working with laboratory devices, solving test problems.

### **Content of the academic discipline**

#### **Content module 1 .**

##### **Ecology as a science. Biosphere.**

Topic 1 Human ecology. Tasks, global environmental problems, methods of ecology

Topic 2 Biosphere and its structure. Circulation of substances in the biosphere. Functions of the biosphere

Topic 3 Structure, composition and properties, hygienic value of the atmosphere , lithosphere and hydrosphere

#### **Content module 2 .**

##### **Air pollution, their impact on health. Protection against contamination**

Topic 4 Air pollution and its impact on public health

Topic 5 Main chemical pollutants of the atmosphere

Topic 6 Physical pollution of the atmosphere

Topic 7 Atmospheric effects of atmospheric pollution

#### **Content module 3 .**

##### **Pollution of the hydrosphere, their impact on health. Protection against contamination**

Topic 8 Problems of quantity and quality of water in the hydrosphere. Anthropogenic impact on the hydrosphere

Topic 9 Water pollution and its impact on human health.

Topic 10 Drinking water problems in Ukraine. Protective measures and legislative documents.

#### **Content module 4.**

##### **Pollution of the lithosphere , their impact on health. Protection against contamination**

Topic 11 Pollution of the lithosphere (soil) and its impact on human health

Topic 12 Natural and anthropogenic soil pollution . Classification of soil pollutants .

Topic 13 Exogenous chemical substances of purposeful introduction into the soil

Topic 14 Soil pollutants with household and industrial waste

Topic 15 Industrial atmospheric emissions . Exhaust gases of vehicles . Radioactive soil contamination. Soil protection from pollution

List of recommended literature:

### Recommended Books

#### Main:

1. Hygiene propaedeutics; textbook: in 2 vols. T1/ V.V., Babienko, A.V. Mokiienko - Odesa: Press-courier, 2022. 400p.
2. Hygiene propaedeutics; textbook: in 2 volumes T2/ V.V. Babienko, A.V. Mokiienko - Odesa: Press-courier, 2022. 400p.
3. Water hygiene and water supply of populated areas: a study guide/ Babienko V.V., Mokiienko A.V. – Odesa: Press Courier, 2021, 327 p.
4. Hygiene and ecology: textbook / [V. H. Bardov, S. T. Omelchuk, N. V. Merezhkina and others] ; in general ed. V. G. Bardov. – Vinnytsia: Nova Kniga, 2020. – 472 p. ISBN 978-966-382-830-5

#### Additional:

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

### 13. Electronic information resources

1. <http://moz.gov.ua> – Ministry of Health of Ukraine
2. [www.ama-assn.org](http://www.ama-assn.org) - American Medical Association / AmericanMedicalAssociation
3. [www.who.int](http://www.who.int) - World Health Organization
4. [www.dec.gov.ua/mtd/home/](http://www.dec.gov.ua/mtd/home/) - State Expert Center of the Ministry of Health of Ukraine
5. <http://bma.org.uk> - British Medical Association
6. [www.gmc-uk.org](http://www.gmc-uk.org) - General Medical Council ( GMC )
7. [www.bundesaerztekammer.de](http://www.bundesaerztekammer.de) – German Medical Association

### ASSESSMENT

Forms and methods of ongoing control: conversation, solving situational problems, practicing skills, filling out protocols on the topic of classes, performing laboratory tests

### Current evaluation criteria in practical training

Perfectly "5"	The student is fluent in the material, takes an active part in discussing and solving the situational problem, confidently demonstrates practical skills during laboratory research, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
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Fine "4"	The applicant has a good command of the material, participates in the discussion and solution of the situational problem, demonstrates practical skills during laboratory and research with some errors, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
Satisfactorily "3"	The applicant does not have sufficient knowledge of the material, is unsure of participating in the discussion and solving the situational problem, demonstrates the practical skills of laboratory research with significant errors.
Unsatisfactorily "2"	The applicant does not possess the material, does not participate in the discussion and solution of the situational problem, does not demonstrate the practical skills of laboratory research.

Forms and methods final control: test, on to the last occupation with educational component.

- the grade "credited" is issued to the applicant who has completed the work program with an educational component, has no academic debt; level competence – high (creative);
- the grade "failed" is issued to the applicant who did not complete the work program educational components, has academic arrears (average mark lower than 3.0 (120 points) and/or missing classes); level of competence - low (receptive-productive)

Possibility and conditions receiving additional (bonus) points: not provided for

### INDEPENDENT WORK EARNERS HIGHER EDUCATION

Independent work provides preparation to Each practical occupation and settlement.

### POLICY EDUCATIONAL DISCIPLINE

*Policy of deadlines and rearrangement :*

- skips classes with disrespectful reasons working out by schedule

another teacher

- Absences due to valid reasons are processed on an individual basis  
schedule with permission dean's office

*Policy of academic integrity :*

Mandatory is compliance academic integrity acquirers, and

exactly:

- independent implementation everyone species works, tasks, forms control, provided for working program of this study disciplines;
- link on sources information in case using ideas development, statements information;
- compliance legal norms about author's right i adjacent rights;
- granting reliable information about the results own educational (scientific) activities, used methods of research and sources information

Unacceptable in educational activity for participants educational process is:

- using family or work connections to obtain a positive or higher evaluations under time implementation any forms control results training or benefits in scientific work;
- using under time control measures forbidden auxiliary materials or technical means (cheat sheet, notes, micro-headphones, phones, smartphones, tablets etc);
- passage procedures control results teaching pretextual persons

For violation of academic integrity, students can be attracted to such academic responsibility:

- a decrease in the results of assessment of the control work, assessment in the lesson, 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 of clothing: a medical gown that completely covers outer clothing, or medical pajamas, cap, mask, changeable shoes

Equipment: textbook, copybook, dictionary, pen.

State of health: applicants are ill with acute infectious diseases, y ago number of on respiratory diseases, before class not are allowed

A student who is late for class can be present on it but if in magazine teacher put "nb", he should him work outin general of order

*Using mobile devices :*

Mobile devices they can be applied acquirers with permission teacher, if they are needed for task performance.

*Behavior in the audience*

The behavior of applicants and teachers in classrooms should be professional and calm, strictly answer rules, installed Provisions about academic virtue and ethics academic relationship in Odesanational medical university , in compliance to of the Code academic ethics and relationship university community of Odesa national medical university , Provisions about prevention and detection academic plagiarism in scientific and research and educational work students of higher education, scientists and teachers of Odesa National University Medical University .