

# SYLLABUS

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INTERNATIONAL EUROPEAN  
UNIVERSITY



**SCHOOL OF  
MEDICINE**

**Hygiene and Ecology**

**2021**



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Discipline 

 Hygiene and Ecology

Lecturer 


 Doctor of Biological Sciences, Associate Professor Maya VERGOLYAS

Lecturer's profile 




Consultations (full-time, online)

On-campus consultations

 The third Thursday of the month 15.30-17.00

Online consultations

 The second Tuesday of the month 15.30-17.00

Contact number 

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E-mail 



Discipline page 



Form of final control	Final test	Diff.credit	Exam
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## Description of the academic discipline (summary)

Professional training of specialists in various medical specialties can not be high quality and effective without a deep study of preventive disciplines - hygiene, sanitation, and ecology.

Knowledge of hygiene for doctors is necessary from a number of positions, the main of which are:

1. Analysis of the health of the population or its individual contingents in connection with anthropogenic and social living and working conditions.
2. Modern diagnosis of diseases, as more than 80% of pathogens and causes of diseases (natural, domestic, social, industrial, etiological, and risk factors) are in the environment, which is studied by hygiene and ecology.
3. Primary, secondary and tertiary disease prevention; organization, implementation, and control of preventive measures by different segments of the population.
4. Assessment of living conditions in organized groups.
5. Analysis of the severity and intensity of work, professional activities in order to determine the need to transfer workers with certain disorders of their health to light work, the appointment of treatment and prevention nutrition, dispensary services, spa treatment, rehabilitation.
6. Ability to recommend methods and means of daily routine, training, work, personal hygiene, nutrition, use of natural factors, and a set of methods and means of hardening the body.
7. Providing medical recommendations and instructions on the use of methods and means of prevention of nosocomial infections, infections, and invasions among the population during its service in the clinic, at home, in organized groups.
8. Carrying out of sanitary-educational work among patients, in the organized collectives (children's, educational, labor), and among the population as a whole and others.

Medical education should contribute to the formation of a young specialist not only clinical but primarily preventive, ie hygienic thinking, understanding the role of environmental factors and social living conditions in the occurrence of health disorders and diseases, justification of preventive measures.

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## Pre-requisites and post-requisites of the academic discipline (interdisciplinary links)

Hygiene and Ecology as a discipline is based on the study by students of such disciplines as "Medical and Biological Physics", "Philosophy", "Medical Chemistry", "Histology, Cytology, and Embryology", "Human Anatomy", "Biological and Bioorganic Chemistry", "Physiology", "Pharmacology", "Pathomorphology", "Pathophysiology", "Microbiology, Virology and Immunology", "Social Medicine, Public Health and the Basics of evidence-based medicine", "Emergency and emergency care", "Infectious diseases", "Oncology and radiation medicine", "Neurology", "Otorhinolaryngology", "Ophthalmology".

Knowledge, skills, and abilities acquired after studying the discipline are required for mastering such disciplines as "Inner Medicine", "Surgery", "Obstetrics", "Gynecology", "Pediatrics".

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## The aim and tasks of the academic discipline:

**The aim** of studying the discipline is to study the theoretical foundations of preventive medicine, including hygiene and ecology, as sciences, which are the basis of the preventive component of the professional worldview of a specialist in "Medicine", students master the necessary knowledge, skills, goals, skills that meet the ultimate goals of the study discipline in accordance with the Standard of Higher Education of Ukraine.

**The main tasks** of studying the discipline are to establish the theoretical foundations of hygiene and ecology, as sciences (terminology, laws, methods, principles of hygienic regulation, regulatory and methodological support for the application of preventive measures) and practice practical skills in the prevention of infectious and non-infectious diseases in accordance with current principles of legislation of Ukraine; carrying out preventive and current sanitary supervision; mastering laboratory research methods (organoleptic, physical, chemical, biological, bacteriological methods); use of favorable health factors of the environment to strengthen human health, harden the body, etc.



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## Learning outcomes of the academic discipline

### Upon completion of the course, students should

#### know:

- the impact of environmental factors on the health of different groups;
- methods of hygienic assessment of the impact of environmental factors on public health;
- laws of hygienic science and general laws of connection of health with factors and conditions of the environment of human life;
- basics of prevention of diseases of infectious and non-infectious origin;
- the principles of a healthy lifestyle and the basics of personal hygiene;
- methods of preventive and current sanitary supervision;
- principles of organization and implementation of preventive measures in connection with the development of territorial, administrative and production units;
- principles of organization and carrying out of preventive measures in accordance with the bases of the current legislation of Ukraine.

#### be able to:

- to analyze the state of the environment and the impact of its factors on the health of various groups; to establish the influence of environmental factors on the health of the population with the help of hygienic assessment methods;
- to interpret the basic laws of hygienic science and to establish the general laws of connection of health with the factors and conditions of the human environment;
- to substantiate hygienic measures for the prevention of diseases of infectious origin;
- to plan measures for the observance of a healthy way of life, personal hygiene and to implement them in the practice of health care; plan organizational and substantive measures for preventive and ongoing sanitary supervision;
- to coordinate plans for preventive measures with plans for the development of territorial, administrative and production units;
- to analyze the state of the environment on the basis of integrated criteria for assessing the health of the population;
- to substantiate the implementation of preventive measures in accordance with the basics of current legislation of Ukraine;
- to plan measures for the organization of medical care in an emergency.

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## ECTS credits

**In the 2nd year** the discipline includes 1 section, 4 semantic sections and credit after studying the discipline. Total hours 60, of which:

Lectures (hours) - 16

Practical classes (hours) –32

Independent work (hours) - 12

**In the 3rd year** the discipline includes 2.3 credits, 1 section, 6 semantic sections and credit after studying the discipline. Total hours 90, of which:

Lectures (hours) - 8

Practical classes (hours) –32

Independent work (hours) - 50

The amount of student workload is described in ECTS credits - credits, which are credited to students upon successful completion of the relevant section (credit).



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## The structure of the discipline

<b>2nd year</b>		2
Topic		Hours
1. Hygiene as a science. Ecology as a science. Environment and human health. Biosphere and its hygienic significance. Solar radiation, its hygienic significance.		2
2. Current issues of municipal hygiene (problems of urbanization, hygiene of settlements, microclimate, lighting, heating, ventilation, biosafety of settlements).		2
3. Hygiene of weather and climate. Acclimatization, heliometeotropic reactions and their prevention, bioethical principles of assess the impact of climatic and weather conditions on health.		2
4. Hygiene of drinking water and water supply.		2
5. Nutrition as a factor of health. Biosafety in food hygiene.		2
6. Diseases related to violation of the rational nutrition basics and the use of poor-quality products, their prevention.		2
7. Hygienic, toxicological and epidemiological problems of nutrition in tropical regions. Hygiene of water and features of water supply of the population in a tropical climate.		2
8. Current issues of labour hygiene, biosafety in hygiene of labour.		2
<b>Total:</b>		<b>16</b>
<b>3rd year</b>		
1. Hygienic characteristics of harmful and dangerous factors of the environment, their impact on the body, preventive measures.		2
2. Current issues of hygiene of children and adolescents. Bioethics and biosafety in the hygiene of children and adolescents.		2
3. Hygiene of medical and preventive institutions and prevention of intrahospital infections. Biosafety issues in the activities of medical and preventive institutions.		2
4. Hygiene of medical and preventive institutions and prevention of intrahospital infections. Biosafety issues in the activities of medical and preventive institutions.		2
<b>Total:</b>		<b>8</b>



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## 7 Signs of discipline

Term of teaching	Semester	International disciplinary integration	Course (year of study)	Cycles: general training / vocational training / free choice
1 semester	4-5 semesters	Yes	2-3	General training / vocational training

## 8 Evaluation system and requirements

### *General system of discipline assessment*

**Current control:** tests, surveys, interviews, testing, reports, speeches, reports, solving situational problems.

Current control is carried out at each practical lesson in accordance with the specific objectives of the topic in order to check the degree and quality of learning the material being studied and during the individual work of the teacher with the student for those topics that the student develops independently and they do not belong to the structure of the practical lesson. All practical classes use objective control of theoretical training and the acquisition of practical skills in order to check the readiness of the student for the lesson. In the process of current control, the student's independent work is evaluated on the completeness of tasks, the level of learning materials, mastering practical skills of analytical, research work, etc.

Assessment of current activities: The student is graded on a scale within the number of points specified for the topic.

The maximum and minimum number of points that a student can receive for studying the current topic, calculated depending on the number of topics. The points obtained by the student on the cumulative principle are added within the content sections.

The average score for the current activity is converted into points on a 200-point scale, according to the recalculation table. The student must receive a grade for each topic.

**The final control** is carried out upon completion of all topics in the last test.

### Conditions of admission to the final control

Students who have attended all the curricula provided by the curriculum in the discipline, and during the study of the section scored no less than the minimum. A student who, for good reason, has missed classes, is adjusted to the individual curriculum and is allowed to work off academic debt by a certain deadline. For students who missed classes without good reason, the decision to complete them is made individually by the director of the institute.

Forms of final control should be standardized and include control of theoretical and practical training.

The maximum number of points that can get an applicant in the discipline - 200. The minimum number of points that must be obtained by the applicant - 120.

QR Code: <https://ie.u.edu.ua/docs/rate-of-study.pdf>



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## Discipline policy

In order to achieve the learning objectives and successfully complete the course, it is necessary to regularly attend lectures and practical classes. Before the practical lesson to take at the department guidelines for independent work, read the material in advance, before its consideration in the practical lesson. It is not allowed to be late and miss classes. Come to lectures and practical classes dressed in a medical gown, keep a notebook for lecture notes and a notebook for practical classes. Be able to work with a partner or in a group, seek help and receive it when you need it.

### For students:

- inadmissible use of a mobile phone, tablet or other mobile devices during classes, copying and plagiarism;
- absences from practical classes are not allowed;
- the study of the discipline is based on collegiality, cooperation and solidarity of the teacher and students;
- students' scientific, exploratory and research work is welcome;
- writing essays on the list of topics of elective tasks is desirable and mandatory if the student wants to improve their assessment;
- topics of the discipline are considered in terms of their practical application and bioethical capacity;
- in classes to be in medical gowns.

### For teachers:

- implementation of the curriculum is mandatory;
- delays in lectures, practical (seminar)
- discipline policy provides for objective assessment of knowledge;
- any manifestations of corruption are prohibited;
- pay special attention to students in practical classes during work with medical equipment, instruments,
- prejudice and discrimination regardless of race, ethnicity and religion.

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## Policy on skipping classes and performance of tasks later than the set deadline

A student who, for valid reasons, is not documented, was not subject to the current control of the masses, has the right to pass the current control within two weeks after returning to study.

A student who was absent from classes without good reason, did not eliminate the academic debt, is not allowed to the final semester control of knowledge in this discipline, and on the day of the test in the statement of the research and teaching staff is graded "not allowed".

Re-examination of the discipline is appointed subject to the implementation of all types of educational, independent (individual) work provided by the working curriculum of the discipline and is carried out in accordance with the approved by the directorate schedule of liquidation of academic debt.

**QR Code:** <https://ieu.edu.ua/docs/050.pdf>

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## Policy of academic integrity

Participants in the educational process are guided by the principles of academic integrity

**QR Code:** <https://ieu.edu.ua/docs/011.pdf>



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## Recommended Literature

### Basic:

1. Hygiene and Ecology: підручник для студентів вищих медичних навчальних закладів: англ.мовою/ за ред. В.Г. Бардова – 2-ге вид., оновл. – Вінниця: Нова книга, 2018. – 688 с.: іл.
2. Hygiene and Ecology. Підручник для студентів вищих медичних навчальних закладів / За редакцією В.Г.Бардова / Англійською мовою. - Вінниця: Нова Книга, 2009. - 688 с.
3. Vladimir A. Korobchanskiy, Michael P. Vorontsov, Alisa A. Musulbas. - Hygiene and Ecology. - Kontrast Publishing Enterprise, Kharkov, 2006. – 165 p.

### Supplementary:

1. Dr. John Everett Park. Preventive and social medicine. Text-book m/s Banarsidas Bhanot. Publishers 1167 PREM Nagar. Jabalpur, 482001 (India) 1997.
2. Brett I. Cassens, M.D., M.B.A., EA.C.P. Preventive medicine and Public health. Harwal Publishing. (Philadelphia. Baltimore, Hong Kong, London, Munish, Sydney, Tokyo). A. Waverly Company-1992.
3. English-Russian Glossary of selected terms in preventive toxicology. United Nations environment programme. Centre of international Project, GKNT. M.: 1982 (Interim Document).
4. O.John M.Zast. Public health and human ecology. - 2nd ed. -Me Graw- Hill, 1987.

### Information resources

Official Internet Representation of the President of Ukraine <http://www.president.gov.ua/>  
The Verkhovna Rada of Ukraine <http://www.rada.gov.ua/>  
Cabinet of Ministers of Ukraine <http://www.kmu.gov.ua/>  
Ministry of Health of Ukraine <http://moz.gov.ua/ua/portal/>  
Public Health Center of the Ministry of Health of Ukraine <https://phc.org.ua/>  
Ministry of Education and Science of Ukraine <http://www.mon.gov.ua/>  
Ministry of Ecology and Natural Resources of Ukraine <http://www.menr.gov.ua/>  
State Service of Ukraine for Emergencies <http://www.dsns.gov.ua/>  
National Security and Defense Council of Ukraine <http://www.rmbo.gov.ua/>  
Permanent Mission of Ukraine to the UN <http://ukraineun.org/>  
World Health Organization <http://www.who.int/en/>  
Centers for diseases control and prevention <http://www.cdc.gov/>

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## Tips for successful learning in the course

Those who study Hygiene and Ecology well contribute to the purity of the Universe.

**So study diligently, and the Universe will thank you soon!**

**See you!**