

**MINISTRY OF HEALTH PROTECTION OF UKRAINE**  
**ODESSA NATIONAL MEDICAL UNIVERSITY**  
 Department of general and clinical epidemiology and biosafety

**Syllabus of the academic discipline**  
 "Methodology of evidence-based medicine"

<b>Scope of the academic discipline</b>	3 ECTS credits, 90 hours Semesters III-IV, academic year 2
<b>Days, time, place of educational discipline</b>	According to the schedule of classes. Department of general and clinical epidemiology and biosafety. Odesa, Primorsky Boulevard, 13
<b>Teacher(s)</b>	Golubyatnikov M.I., doctor of medicine, professor, head of the department.  Professors: Doctor of Medicine Bachynska O.V., Doctor of Medicine. A. I. Savchuk, Doctor of Medicine. K.O. Talalaev, Doctor of Medicine. Haidey V.R.  Associate professors: Servetskyi S.K., Fedorenko T.V. Assistants: T.V. Gerasimenko, G.M. Jurtubaeva, O.A. Melnyk, K.S. Hrytsenko, L.V. Kostolonova, M.O. Makarenko.
<b>Contact Information</b>	Help by phone: (067)7378912 manager department BachynskaElenaVolodymyrivna E-mailepidbiosafety@onmedu.edu.ua Face-to-face consultations: Wednesday – from 2:30 p.m. to 4:00 p.m. Saturday – 10:00 a.m. to 3:00 p.m. An online link for online counseling is provided to each group during the class 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, Viber messengers (through groups created in Viber for each group, separately through the head of the group).

**ABSTRACT OF THE EDUCATIONAL  
DISCIPLINE**

*Subject of discipline study-* mastering information on the problems of the evidence-based approach in the field of health care, revealing the potential of evidence-based medicine as a technology for preserving health and improving the quality of life.

*Prerequisites:* human anatomy, Latin, medical chemistry, medical informatics, philosophy with a cycle of academic integrity.

*Post-requisites:* the formation of knowledge in evidence-based medicine as the basis of the state policy of health care and medical provision, as well as the acquisition by future doctors of practical skills and abilities that will allow them to critically evaluate medical information for its rational and effective use in further practical activities, the ability to think abstractly .

*The purpose of the discipline is* acquisition by the student of higher education of the skills of searching, critical evaluation and use of medical information for making rational (scientifically based) decisions.

*Tasks of the discipline:*

- Learning the theoretical foundations, modern principles, regularities and legal foundations of evidence-based medicine in the context of preserving and strengthening the health of the population;
- Mastering the activity of a family doctor with the resources of evidence-based medicine and ways to improve it;
- Mastering the basics of statistical analysis of medical data.

*Expected results:*

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

*Know:*

- defining the term "evidence-based medicine" as subject  
teaching, its importance for health care practice;
- prerequisites for the emergence of evidence-based medicine;
- leading principles of evidence-based medicine;
- tasks of evidence-based medicine;
- legal principles of modern health care;
- the principle of using only scientific and medical information of the highest level of evidence;
- the principle of constant updating of information regarding the achievements of medical science and clinical practice);
- hierarchy of evidentiary sources of information. "Pyramid of evidence";
- sources of evidence-based medicine;
- the order of presentation of scientific papers.

*Be able:*

- to plan an epidemiological study;

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- to plan a screening study;
- to compare the diagnostic test with the "gold standard";
- interpret the features of evidence-based medical care for the population;
- analyze expediency implementation different models primary medical care based on evidence-based medicine;
- carry out an assessment of the quality of medical care;
- develop management solutions aimed at improving the health of the population and optimizing medical care;
- use the skills of finding reliable information for the development and implementation of preventive measures aimed at preserving, strengthening the health and social well-being of the population;
- apply the skills of assessing the originality of scientific works and its design;
- notice mistakes in writing research results from the point of view of evidence-based medicine;
- critically evaluate systematic reviews;
- use clinical protocols, international guidelines.

**DESCRIPTION OF THE EDUCATIONAL DISCIPLINE**

*Forms and methods of education*

The discipline will be taught in the form of seminar classes (30 hours) and organization of independent work of applicants (60 hours).

*Teaching methods.*

Seminar classes:

- verbal methods: conversation, explanation, discussion, discussion problem situations;
- visual methods: illustration (including multimedia presentations);
- practical methods: implementation test tasks, solutions situational tasks (including calculation).

Independent work:

- independent work with recommended basic and additional literature, with electronic information resources, preparation for practical classes;
- independent performance of an individual task, preparation of a presentation to defend an individual task.

*Content of the academic discipline*

*Topic 1.* The origin of evidence-based medicine. Prerequisites for the emergence of evidence-based medicine.

*Topic 2.* Leading principles of evidence-based medicine. Tasks of evidence-based medicine.

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*Topic 3.* Levels of evidence, degrees of recommendation.

*Topic 4.* Key concepts of clinical epidemiology.

*Topic 5.* Design epidemiological of research Features carrying out epidemiological research.

*Topic 6.* Epidemiological studies in health care, their classification. Empirical and experimental studies.

*Topic 7.* Screening tests: characteristics and basic requirements.

*Topic 8.* Concept of risk factors.

*Topic 9.* Scientific works on the research of diagnostic and screening tests.

*Topic 10.* Databases on population health.

*Topic 11.* Assessment of methodological quality. Errors in writing research results from the point of view of evidence-based medicine.

*Topic 12.* Systematic reviews and meta-analysis.

*Topic 13.* Clinical trials of medical drugs. Evidence-based medicine and marketing. Choice of treatment. Surrogate endpoints. Reliable information from a medical representative.

*Topic 14.* Clinical studies and recommendations. Diagnostic and treatment protocols.

*Topic 15.* Use of evidence-based medicine knowledge in the activities of a public health specialist. Scientific works are devoted to qualitative and questionnaire research. The order of presentation of scientific papers. Final control – Test.

*List of recommended literature Main:*

1. Basic principles of evidence-based medicine: teaching. manual / S.M. Kiselov. Zaporizhzhia: ZDMU, 2018. 117 p.
1. Biostatistics: a textbook / [T.S. Gruzeva, V.M. Lekhan, V.A. Ognev, etc.]; according to general ed. Gruzevoy T. S. Vinnytsia: Nova Kniga, 2020. 384 p.

*Additional:*

1. Practicum for preparation for practical classes in the academic discipline "Public health". Lviv, 2020.
2. Public health: textbook for students. higher med. education institutions Vinnytsia: "New book", ed. 3. 2013. 560 p.

## EVALUATION

*Forms and methods of current control:*

- oral control: individual survey on questions of the relevant topic;
- written control: evaluation of the solution of situational tasks (including calculation), evaluation of the performance of an individual task;
- test control: evaluation of the performance of test tasks by topic.

*Current assessment criteria at the seminar session*

Rating	Evaluation criteria
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<p>Perfectly "5"</p>	<p>The recipient takes an active part in the seminar class; demonstrates deep knowledge, gives complete and detailed answers to questions; actively participates in the discussion of problem situations, uses additional educational and methodological and scientific literature; knows how to form his attitude to a certain problem; expresses his own reasoning, gives appropriate examples; knows how to find the most adequate forms of conflict resolution. The test tasks are completed in full, all 100% of the answers to the questions are correct, the answers to the open questions are complete and justified.</p> <p>The applicant freely solves situational tasks (including calculations), confidently demonstrates practical skills on the topic of the lesson and correctly interprets the data obtained, expresses his own creative opinion on the topic of the task, demonstrates creative thinking.</p>
<p>Fine "4"</p>	<p>The applicant participates in a seminar class; knows the material well; demonstrates the necessary knowledge, but gives answers to questions with some errors; participates in the discussion of problem situations, uses basic educational and methodological and scientific literature; expresses his own opinion on the subject of the lesson.</p> <p>The test tasks are completed in full, at least 70% of the answers to the questions are correct, the answers to the open questions are generally correct, but there are some errors in the definitions.</p> <p>The applicant correctly solves situational tasks (including calculations), but allows minor inaccuracies and demonstrates more standardized practical skills on the topic of the lesson with the correct interpretation of the data received, expresses his own opinion on the topic of the task, demonstrates critical thinking.</p>

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Satisfactorily "3"	<p>The recipient sometimes participates in a seminar class; partially speaks and asks questions; makes mistakes when answering questions; shows passive work in seminar classes; shows fragmentary knowledge of the conceptual apparatus and literary sources.</p> <p>The testing was carried out in full, at least 50% of the answers are correct, the answers to the open questions are not logical, with obvious significant errors in the definitions.</p> <p>The applicant does not have sufficient knowledge of the material to solve situational tasks (including calculations), is unsure of demonstrating practical skills on the subject of the lesson and interprets the received data with significant errors, does not express his opinion on the topic of the situational task.</p>
Not satisfactory "2"	<p>The recipient does not participate in the seminar class, is only an observer; never speaks or asks questions, disinterested in learning the material; gives incorrect answers to questions, shows unsatisfactory knowledge of conceptual apparatus and literary sources.</p> <p>Testing not done.</p> <p>Situational task not completed.</p>

*Forms and methods of final control:* Credit is awarded to an applicant who has completed all sections of the educational program of the elective discipline, has actively participated in seminars, has a current grade point average of at least 3.0, and has no academic debt.

*The possibility and conditions of obtaining additional (bonus) points:* not provided.

**INDEPENDENT WORK OF HIGHER EDUCATION  
ACQUIRES**

*Independent work:* independent work with recommended basic and additional literature, with electronic information resources, independent mastering of the material of several lectures; preparation for each seminar class.

**EDUCATIONAL DISCIPLINE POLICY**

*Deadlines and Rescheduling Policy:*

- Absences of classes for non-respectable reasons will be worked out according to the schedule of the teacher on duty.
- skips out with respectable reasons working out by individualschedule with the permission of the dean's office.

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*Academic Integrity Policy:*

Observance of academic integrity by students of education is mandatory and includes:

- independent performance of all types of work, tasks, forms of control provided for by the work program of this educational discipline (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- references to sources of information in case of use of ideas, developments, statements, information;
- compliance with the legislation on copyright and related rights;
- provision of reliable information about the results of one's own (scientific, creative) activity, used research methods and sources of information.

Unacceptable in educational activities for participants of the educational process are:

- the use of family or official ties to obtain a positive or higher grade during the exercise of any form of control of studies or advantages in scientific work;
- the use of prohibited auxiliary materials or technical means (cheat sheets, notes, micro-earphones, telephones, smartphones, tablets, etc.) during control measures;
- going through procedures for monitoring the results of training by fake persons.

For violation of academic integrity, students may be held to the following academic responsibility:

- a decrease in the results of assessment of the control work, assessment in class, credit, etc.;
- retaking the assessment (test, credit, etc.);
- assignment of additional control measures (additional individual tasks, control works, tests, etc.);
- conducting an additional inspection of other works authored by the violator.

*Attendance and Tardiness Policy.* In accordance with the statute and rules of the internal procedure for persons studying at the university, to comply with the schedule of the educational process and the requirements of the curriculum, in particular: mandatory attendance of classroom classes; do not be late, come to classes according to the class schedule. A student who is late for class can attend it, but if the teacher has put "nb" in the journal, he must complete it in the general order. Uniform: a medical gown that completely covers the outer clothing, or medical pajamas, a cap, a mask.

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Equipment: textbook, notebook, pen. State of health: applicants suffering from acute infectious diseases, including respiratory diseases, are not allowed to attend classes.

*Use of mobile devices:* The use of mobile devices is prohibited during the class.

*Behavior in the audience:*

The behavior of applicants and teachers in the classrooms should be working and calm, strictly comply with the rules established in accordance with Code of Academic Ethics and Relations of the Odesa University Community National Medical University.