

MINISTRY OF HEALTH PROTECTION OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY

Department of general and clinical epidemiology and biosafety with a course in
microbiology and virology

Syllabus of the academic discipline

"Epidemiology with the principles of evidence-based medicine»

Scope of the academic discipline	Total hours per discipline: 90 hours, 3.0 credits. Semesters: XI - XII. 6th year of study.
Days, time, place of educational discipline	According to the schedule of classes. Department of general and clinical epidemiology and biosafety with a course in microbiology and virology, Odesa, 13 Prymorsky Boulevard.
Teacher(s)	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. Haydey 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
Contact Information	Help by phone: Melnyk O.A., head of the department; phone - 0965920621, responsible for organizational and educational work of the department phone Gavrushko T.G., laboratory assistant of the department; phone number 0681241260 E-mail of the department: kozishkurt.n@gmail.com Face-to-face consultations: from 14.00 to 17.00 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. A link to an online consultation is provided to each group during classes separately.

COMMUNICATION

Classes are held at the department, according to the schedule.
Communication with applicants will be conducted in the classroom (face-to-face).

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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

The subject of study of the academic discipline: the epidemic process of infectious diseases, which is implemented through various mechanisms and ways of transmission, as well as the epidemic process of somatic diseases, which is implemented due to the influence of genetic, dangerous: chemical, physical or biological factors in the everyday life of an individual person, the intensity of which depends on environmental conditions and socio-hygienic skills, the study tool is: an epidemiological research method based on the principles of evidence-based medicine.

The purpose of teaching the academic discipline are: the formation of knowledge, skills and competencies in future specialists, as well as the education of a culture of life safety, to ensure the effective management of the epidemic process of dangerous infectious diseases, preventive principles regarding the occurrence of somatic diseases, which are to a greater extent socially conditioned for the implementation of the priority of the principle of primary prevention . Training of specialists who possess the necessary amount of theoretical and practical knowledge for the organization and implementation of preventive and anti-epidemic measures regarding infectious diseases with various transmission mechanisms.

Tasks of the discipline:

1. Formation of skills and abilities: organization and implementation of anti-epidemic measures in centers of infectious diseases.
2. Improving the skills of effective detection of the source of the pathogen and the leading ways of its transmission, the conditions for the development of the epidemic process and its forecasting.
3. Mastering the ability to interpret the manifestations of the epidemic process of specific nosological forms belonging to different groups of infectious diseases (respiratory, intestinal, transmissible and external covers) in separate territories.
4. Mastering the ability to formulate working hypotheses regarding the risk factors of morbidity in individual territories, among different population groups and in collectives regarding specific infectious diseases.
5. To be able to use the techniques of the epidemiological research method in practice.

Expected learning outcomes.

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

Know:

- principles of evidence-based medicine and use them in practice.
- manifestations of the epidemic process

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- the procedure for carrying out activities related to the detection, examination, monitoring, localization and elimination of an epidemic center;
- the procedure for carrying out anti-epidemic work of a family doctor and an infectious disease doctor;

Be able:

- to organize and carry out anti-epidemic measures in centers of infectious diseases.
- to organize and carry out anti-epidemic measures in centers of infections related to the provision of medical care.
- interpret the results of using the epidemiological research method in practice.
- interpret the epidemiological, social and economic significance of individual nosological forms.
- fill out the documentation regarding the registration and accounting of infectious patients.
- to determine and interpret the epidemiological manifestations of the incidence of infections belonging to different groups (respiratory, intestinal, transmissible, and infections of external covers).
- use regulatory and instructional documentation of the Ministry of Health of Ukraine and international standards to eliminate foci of specific nosological forms belonging to various groups of infectious diseases (respiratory, intestinal, transmissible and external integuments, ONI).
- to interpret the regularities and features of the course of the epidemic process in infectious diseases that require special tactics.

Master the skills:

- formulation of working hypotheses regarding the risk factors of morbidity in individual territories, among different population groups and in collectives regarding specific infectious diseases.
- determination of priority problems of prevention of infectious diseases by groups and nosological forms.
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DESCRIPTION OF THE EDUCATIONAL DISCIPLINE

Forms and methods of education

The discipline will be taught in the form of practical classes (30 hours).
Organization of independent work of applicants (60 hours).

Teaching methods: conversation, role-playing games, solving clinical situational problems, practicing the skills of developing anti-epidemic measures in the focus of an infectious disease, practicing the skills of working with medical documentation (357/o, 058/o), regulatory documents, preventive work, epidemiological investigation of infectious disease cases in organized teams .

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Content of the academic discipline: Topic 1. Teaching about the epidemic process. The importance of epidemiology for public health. Basic epidemiological concepts. Anti-epidemic measures in the focus of an infectious disease.

Topic 2. Epidemiological research method and its structure. Epidemiological diagnosis. Forecasting the development of the epidemic process. Planning of anti-epidemic and preventive measures. errors.

Topic 3. Evidence-based medicine and clinical epidemiology. Analytical and experimental epidemiology. Design of observational, analytical, experimental, epidemiological (clinical) studies.

Topic 4. Epidemiological surveillance of non-infectious diseases.

Topic 5. Main types of screening programs, problems of their implementation and analysis of results. Evidence-based prevention

Topic 6. The value of meta-analysis in scientific research and for clinical practice. Hierarchy of evidence of epidemiological (clinical) studies. Scientific publication as a mechanism for implementing scientific research.

Topic 7. Anti-epidemic and preventive work in the practice of a family doctor. Immunoprophylaxis of infectious diseases. Calendar of preventive vaccinations.

Topic 8. Disinfection and sterilization. Live carriers of pathogens of infectious diseases. Disinsection. Deratization

Topic 9. Infections associated with the provision of medical care. Infection control system.

Topic 10. Anti-epidemic measures in foci of infections with fecal-oral transmission mechanism.

Theme 11. Anti-epidemic measures in foci of infections with an aerogenic transmission mechanism

Topic 12. Anti-epidemic measures in foci of infections with transmissible, contact and multiple transmission mechanisms

Topic 13. Peculiarities of carrying out anti-epidemic measures in cases of emergency situations in peacetime under conditions of introduction of infections of international importance.

Topic 14. Anti-epidemic protection of troops, bacteriological intelligence.

Topic 15. Differentiated credit

List of recommended literature:

Main:

1. Andreychyn M., Kopcha V. Bioterrorism: Medical countermeasures. – Ternopil: Ukrmedknyga, 2015. – 300 p.
2. Vinohrad N. O. General epidemiology: teaching. manual / N. O. Vinohrad, Z. P. Vasylyshyn, L. P. Kozak. - K.: VSV "Medicine", 2017. - 200 p.
3. Vinohrad N. O. Special epidemiology: teaching. manual / N. O. Vinohrad, Z. P. Vasylyshyn, L. P. Kozak. - K.: VSV "Medicine", 2018. - 367 p
4. Vinohrad, N. O. Military epidemiology: study guide / N. O. Vinohrad, Z. P.

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Vasylyshyn, L. P. Kozak. - Kyiv: Medicine, 2018. - 184 p.

5. Epidemiology in schemes: a study guide / M. D. Chemych, N. G. Malysh, O. M. Chemych, N. I. Ilyina. – Vinnytsia: Nova Kniga, 2020. – 256 p.

6. Epidemiology: a textbook for students. higher med. education institutions / A. M. Andreychyn, Z. P. Vasylyshyn, N. O. Vinograd; under the editorship I. P. Kolesnikova. Vinnytsia: Nova Kniga, 2012. 576 p.: illustrations.

7. Epidemiology: anti-epidemic measures: study guide / M. D. Chemych, N. G. Malysh, N. I. Ilyina [and others]. – Vinnytsia: Nova Kniga, 2020. – 288 p.

8. Kiselyov S. M. Basic principles of evidence-based medicine: teaching. manual / S. M. Kiselyov. Zaporizhzhia: ZDMU. 2018. 117 p.

9. Tick-borne infections: modern clinical and epidemiological, diagnostic and therapeutic aspects / O.K. Duda, G.V. Batsyura, V.O. Boyko, L.F. Matyukha, L.P. Kotsyubailo// Educational and methodological manual. - Kyiv, Publishing House "Master Books". - 2019. - 117 p.

10. Fundamentals of Ukrainian legislation on health care: Law of Ukraine No. 2801-XII in ed. from 07/24/2020 URL:<https://zakon.rada.gov.ua/laws/show/2801-12#Text>

11. Polymerase chain reaction in laboratory diagnostics of infectious diseases. Educational and methodological manual for doctors / edited by I.V. Dzyublyk, N.G. Horovenko. - K.- 2015.-219 p.

12. On ensuring sanitary and epidemic welfare of the population: Law of Ukraine No. 4005-XII in Ed. from 10/16/2020 URL:<https://zakon.rada.gov.ua/laws/show/4004-12#Text>

13. Serdyuk A.M., Khomenko I.P., Lurin I.A. etc. Experience of organization of sanitary-hygienic and anti-epidemic provision of troops (forces) during an anti-terrorist operation (operation of joint forces) / edited by Acad. NAMNU, member-cor. NASU V.I. Tsimbalyuk Kyiv. 2019. 280 p.

Additional:

1. Order of the Ministry of Health of Ukraine No. 595 "On the procedure for conducting prophylactic vaccinations in Ukraine and quality control and circulation of medical immunobiological preparations" dated September 16, 2011.

2. Provision of first aid in emergency situations in the city: educational method. manual K., 2016. 56 p.

3. Measures of anti-epidemic protection in the Armed Forces, and their research in military epidemiology: training. Manual, 2015. 212 p.

4. Actual issues of epidemiology and prevention of some infections in the armed forces, among the population of Ukraine and in the world. K. 2015. 372 p.

5. Selected issues of prevention of emergencies caused by epidemics in the Armed Forces of Ukraine. K. 2015. 344 p.

6. Evolutionary aspects of the epidemic process in the armed forces of Ukraine. K., 2015. 312 p.

7. Atlas of infectious diseases / [M.A. Andreychyn, V.S. Kopcha, S.O. Kramaryov, etc.]; under the editorship MA. Andreychyna - 2nd ed., Ex. and added - Ternopil: Handbooks and manuals, 2017. - 288 p

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8. Vinograd N. O. Terminological dictionary: Biological safety. Epidemiology. Parasitology: education. manual/N. O. Vinograd. - Vinnytsia: "New book", 2019. - 308 p.
9. Infectious diseases / A. O. Golubovsky [and others]; under the editorship O. A. Golubovska. 2nd ed., revised and supplemented - K.: VSV "Medicine", 2018. - 688 p.
10. Infectious diseases: Textbook / Nikitin E.V., Andreychyn M.A., Servetskyi K.L., Kachor V.O., Golovchenko A.M., Usychenko E.M.; Edited by: E.V. Nikitina, M.A. Andreychyna – Ternopil: Ukrmedknyga, 2014. 364 p.

Electronic information resources

1. World Health Organization www.who.int
2. Cochrane Center for Evidence-Based Medicine www.cebm.net
3. Cochrane Library www.cochrane.org
4. US National Library of Medicine - MEDLINE www.ncbi.nlm.nih.gov/PubMed
5. Canadian Center for Evidence in Health Care www.cche.net
6. Center for Disease Control and Prevention www.cdc.gov
7. Public Health Center of the Ministry of Health of Ukraine www.phc.org.ua
8. Ukrainian database of medical and statistical information "Health for all": <http://medstat.gov.ua/ukr/news.html?id=203>
9. British Medical Journal www.bmj.com
10. Journal of Evidence-Based Medicine www.evidence-basedmedicine.com

EVALUATION

Forms and methods of current control: oral (survey), practical (solving clinical situational problems, practicing the skills of developing anti-epidemic measures in an outbreak of an infectious disease, practicing the skills of working with medical documentation (357/o, 058/o), regulatory documents, preventive work, epidemiological investigation of infectious disease cases in organized teams).

Final control: differential assessment, testing

Evaluation of the current educational activity in a practical session:

1. Evaluation of theoretical knowledge on the subject of the lesson:
 - methods: survey, solving a situational problem;
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
2. Evaluation of practical skills and manipulations on the subject of the lesson:
 - methods: assessment of correct performance of practical skills - maximum score – 5, minimum score – 3, unsatisfactory score – 2.

The grade for one seminar session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

Current assessment criteria for practical training:

Rating	Evaluation criteria
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Perfectly "5"	The applicant is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills when collecting an epidemiological history, planning anti-epidemic measures in foci of infectious diseases with various transmission mechanisms, planning preventive measures, forecasting an epidemic situation and interpreting clinical results, laboratory and instrumental research in a specific patient to confirm the preliminary diagnosis of an infectious disease, expresses his opinion on the topic of the lesson, demonstrates epidemiological thinking.
Fine "4"	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the collection of an epidemiological history, planning anti-epidemic measures in foci of infectious diseases with various transmission mechanisms, planning preventive measures, forecasting an epidemic situation and interpreting the results of clinical, laboratory and instrumental research in a specific patient to confirm the preliminary diagnosis of an infectious disease with some errors, expresses his opinion on the subject of the lesson, demonstrates epidemiological thinking.
Satisfactorily "3"	The applicant does not have sufficient knowledge of the material, takes part in the discussion and solution of the situational clinical problem without confidence, demonstrates practical skills during the collection of epidemiological anamnesis, planning anti-epidemic measures in outbreaks of infectious diseases with various mechanisms of transmission, planning preventive measures, forecasting the epidemic situation and interpreting the results of clinical, laboratory and of instrumental research in a specific patient, to confirm the preliminary diagnosis of an infectious disease with significant errors, expresses his opinion on the subject of the lesson, demonstrates epidemiological thinking.
Unsatisfactorily "2"	The applicant does not possess the material, does not take part in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the collection of epidemiological anamnesis, planning of anti-epidemic measures in foci of infectious diseases with various mechanisms of transmission, planning of preventive measures, forecasting the epidemic situation and interpreting the results of clinical and laboratory and instrumental research in a specific patient to confirm a preliminary diagnosis of an infectious disease.

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Only those applicants who have fulfilled the requirements of the training program in the discipline, have no academic debt and their average score for the current educational activity in the discipline is at least 3.00 points are admitted to the final control in the form of a differentiated credit.

Evaluation of the results of the students' training during the final control - differentiated assessment

The content of the evaluated activity	Number
Solving the situational problem with the assessment of laboratory and instrumental research and the development of anti-epidemic measures aimed at various links of the epidemic process.	2
Answers to theoretical questions.	2

Criteria for evaluating the results of education of students on the diff. offset

Rating	Evaluation criteria
Perfectly "5"	It is presented to the applicant who worked systematically during the semester, showed versatile and deep knowledge of the program material during the differential assessment, is able to successfully perform the tasks provided for by the program, mastered the content of the main and additional literature, realized the relationship of individual sections of the discipline, their importance for the future profession, showed creative abilities in understanding and using educational program material, showed the ability to independently update and replenish knowledge; the level of competence is high (creative);
Fine "4"	It is awarded to the applicant who has demonstrated complete knowledge of the curriculum material, successfully completes the tasks provided for by the program, mastered the basic literature recommended by the program, has shown a sufficient level of knowledge in the discipline and is capable of their independent updating and renewal in the course of further education and professional activity; the level of competence is sufficient (constructive and variable)
Satisfactorily "3"	It is issued to the applicant who has demonstrated knowledge of the basic curriculum material in the amount necessary for further education and subsequent work in the profession, copes with the tasks provided for in the program, made some mistakes in the answers on the exam and when completing the exam tasks, but has the necessary knowledge for overcoming mistakes made under the guidance of a scientific and pedagogical worker; level of competence - average (reproductive)
Unsatisfactory	It is presented to the applicant who did not demonstrate sufficient

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ctorily "2"	knowledge of the main educational program material, made fundamental mistakes in the performance of tasks provided for by the program, cannot use the knowledge in further studies without the help of a teacher, did not manage to master the skills of independent work; the level of competence is low (receptive-productive)
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Distribution of points received by higher education applicants

The grade for the discipline consists of 50% of the grade for the current academic performance and 50% of the grade for the differentiated assessment. The average score for the discipline is translated into a national score and converted into points on a multi-point scale (200-point scale). The conversion of a traditional assessment into a 200-point assessment is carried out by the information and technical department of the University.

Table of conversion of traditional assessment to multi-point assessment

National assessment for discipline	The sum of points for the discipline
Excellent ("5")	185 - 200
Good ("4")	151 - 184
Satisfactory ("3")	120-150
Unsatisfactory ("2")	Below 120

INDEPENDENT WORK OF HIGHER EDUCATION ACQUIRES

Independent work involves preparation for each practical session.

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.
- Absences for valid reasons are worked out according to an individual schedule with the permission of the dean's office.

Academic Integrity Policy:

Applicants must observe academic integrity, namely:

- independent performance of all types of work, tasks, forms of control provided for by the work program of this educational discipline;
- references to sources of information in case of use of ideas, developments, statements, information;
- compliance with the legislation on copyright and related rights;

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- provision of reliable information about the results of one's own educational (scientific) 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 any form of control of academic performance or academic merit;
 - 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:

Uniform: a medical gown that completely covers the outer clothing, or medical pajamas, a cap, a mask, and a change of shoes.

Equipment: notebook, pen, calculator.

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

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.

Use of mobile devices:

Mobile devices may be used by students with the permission of the instructor if they are needed for the assignment.

Behavior in the audience:

The behavior of applicants and teachers in the classrooms should be working and calm, strictly comply with the rules established Regulations on academic integrity and ethics of academic relations at Odesa National Medical University, in accordance Code of academic ethics and relations of the university community of Odesa National University medical university, Regulation on prevention and detection of academic plagiarism in scientifically-research and educational work of students of higher education, scientists and teachers Odessa National Medical University