

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

"Social medicine, public health and the basics of evidence-based medicine"

Scope of the academic discipline	Total number of hours per discipline: 60 hours, 2 credits. Semesters: III-IV. 2 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; telephone number - 0965920621, responsible for organizational and educational work of the department Gavrushko T.G., laboratory assistant of the department; phone number 0681241260 E-mail of the department: _____ 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. A link to an 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

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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 study of the discipline - modern principles of evidence-based medicine, theoretical and methodological foundations of biostatistics, patterns of population health.

The study of the discipline ends with a test, therefore, in the process of covering various topics, it is advisable for students to pay attention to the questions that are presented to them.

Purpose of the discipline: acquiring the necessary knowledge, skills and competences related to research, analysis and assessment of population health indicators, organization, resource provision and activities of the health care system; development of recommendations from the standpoint of evidence-based medicine on prevention and elimination of the harmful effects of factors on health and on improving the organization of medical assistance to the population and the public health system.

Tasks of the discipline:

1. mastering the basic concepts and concepts of evidence-based medicine and biostatistics;
2. assimilation of patterns of formation and methods of assessment of population health indicators, including dental, and the influence of medical and social, economic, environmental factors, conditions and lifestyle on it;
3. assimilation of theoretical bases and methods of evaluation of the health care system, organization of various types of medical care, incl. dental, ensuring its availability and quality;
4. mastering the principles, directions, tasks of the public health system, its functions, structure;
5. formation of knowledge on the scientific substantiation of recommendations for the prevention and elimination of unfavorable socio-economic and environmental factors and conditions for the health of the population,
6. mastering the principles of substantiation of health measures to improve the level of public health, promotion of dental health;
7. mastering the principles of developing measures to improve the quality of medical care, including dental

Expected results:

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

Know:

- definition of social medicine and public health as a science and subject of

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teaching, its significance for health care practice;

- theoretical and methodical foundations of biostatistics;
- basic organizational elements of statistical research;
- methodological foundations and criteria for choosing the main adequate methods of analysis for testing statistical hypotheses;
- theoretical and methodical bases of analysis of statistical results, their assessment and description in order to form reasonable conclusions
- peculiarities of interpretation of the concept of "health", indicators of population health;
- regularities in the formation of the demographic situation, its features in different countries;
- components of the medical and social significance of morbidity and methods of its study;
- classification of risk factors, assessment of their possible impact on public health;
- basic principles and types of medical assistance to the population, features of medical provision of various contingents of the urban and rural population;
- organization and content of the work of medical institutions and doctors of the main specialties;

Be able:

to determine the tactics of statistical research organization, experiment planning;

- to determine the necessary methods of statistical processing of research data;
- calculate statistical indicators, parameters of statistical aggregates;
- prevent, diagnose and correct statistical errors;
- determine the methods of graphical representation of the results of statistical analysis;
- evaluate and analyze statistical indicators and parameters of statistical aggregates;
- use applied methods of biostatistics for data analysis;
- determine and evaluate health indicators using appropriate statistical methods;
- to determine and analyze indicators of morbidity: general, infectious, hospitalized, for the most important socially significant diseases, with temporary loss of working capacity;
- to calculate and evaluate the performance indicators of dental institutions or departments and dentists.

DESCRIPTION OF THE EDUCATIONAL DISCIPLINE

Forms and methods of education

The discipline will be taught in the form of lectures (10 classroom hours), practical classes (30 classroom hours); self-organized work of the applicant (20 hours).

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Teaching methods: Lectures. Practical classes: conversation, solving situational problems, practicing skills for working with medical documentation. Independent work: independent work with the textbook, independent work with the bank of test tasks Step-1, independent solution of situational tasks.

Content of the academic discipline

Subsection 1. "Biostatistics"

- 1 Social medicine and public health as a science. Evidence-based medicine, research methods and its significance for health care practice.
- 2 Relative values. Graphic representation of statistical data.
- 3 Variation series. Average values.
- 4 Methodstandardization. Analysis of dynamic series. Risk factors. Methodology for calculating risk indicators and their assessment.
- 5 Assessment of the probability of research results. Parametric and non-parametric criteria for assessing the probability of obtained results. Correlation-regression analysis.
- 6 design, methods of collecting statistical material and organization of statistical research. Screening. Types of questionnaires, compilation method.

Subsection 2. "Population health statistics"

- 7 Population health: study methodology and features of demographic processes.
- 8 Methodcalculation and assessment of reproductive health and demographic indicators: fertility and mortality.
- 9 General trends in population morbidity. Disability and physical development as indicators of population health.
- 10 Methodstudy of population morbidity. Calculation and evaluation of indicators of general morbidity and its varieties.

Subsection 3. "Organization of health care"

- 11 Healthcare systems. Main characteristics and organization of medical care.
- 12 Family medicine. Primary, secondary and tertiary medical assistance to the population.
- 13 Emergency and urgent medical assistance to the population. Emergency situations in health care.
- 14 Organization of obstetric and gynecological care and medical care for children.
- 15 Organization of medical care for the elderly. Palliative and hospice care.
- 16 Organization of medical examination of disability. Temporary and permanent loss of working capacity, method of calculating indicators.

Unit "Organization of dental care"

- 17 Dental health of the population and organization of dental care.
- 18 Promotion of dental health. Evidence-based prevention of dental diseases.
- 19 Institutions of dental care for the population. Analysis of the activity of a dentist and a dental polyclinic.

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List of recommended literature:

Main:

1. Biostatistics: a textbook / by general ed. T. S. Gruzeva. Vinnytsia: Nova Kniga, 2020. 384 p.
2. Public health: a study guide [Gruzheva T.S., Galienko L.I., Grechishkina N.V. etc.]; in general ed. Gruzevoy T.S., K.: Book-plus, 2021. 296 p
3. Oxford Textbook of Global Public Health, 6 edition. Edited by Rogers Detels, Martin Gulliford, Quarraisha Abdool Karim and Chorh Chuan Tan. - Oxford University Press, 2017. - 1728 p.

Additional:

1. Public health: textbook for students. higher med. education institutions - Kind. 3 - Vinnytsia: "New Book", 2013. - 560 p.
2. Medical Statistics at a Glance Text and Workbook. Aviva Petria, Caroline Sabin. - Wiley-Blackwell, 2013. - 288 p.
3. Board Review in Preventive Medicine and Public Health. Gregory Schwaid. - ELSEVIER., 2017. - 450
4. Donaldson's Essential Public Health, Fourth Edition. [Liam J. Donaldson](#), [Paul Rutter](#) - CRC Press, Taylor&Francis Group, 2017 - 374 p.
5. Jekel's epidemiology, biostatistics, preventive medicine and public health. Fourth edition. David L. Katz, Joann G. Elmore, Dorothea MG Wild, Sean C. Lucan. - ELSEVIER., 2014. - 405 p.
6. Oxford Handbook of Public Health Practice, Fourth Edition. Charles Guest, Walter Ricciardi, Ichiro Kawachi, Iain Lang. - Oxford University Press, 2012. - 656 p.
7. Primer of Biostatistics, Seventh Edition. Stanton A. Glantz - McGraw-Hill Education, 2012.-320 p.
8. Collection of test tasks for state tests in hygiene, social medicine, organization and economics of health care. Education manual. - Vinnytsia: New Book, 2012 - 200 p.
9. Methods of social medicine / ed. OHM. Ocheredko, O.H. Protsek - Vinnytsia: Thesis, 2007. - 410 p.
10. Social medicine and the organization of health care (for students of dental faculties of higher medical educational institutions of Ukraine of the IV level of accreditation. - K.: Kniga plyus, 2010. - 328 p.
11. Annual report on the state of health of the population, the sanitary-epidemic situation and the results of the health care system of Ukraine. 2016 / Ministry of Health of Ukraine, State University "UISD of Ministry of Health of Ukraine". - Kyiv, 2017. - 516 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 -

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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 assessing the state of the population's health and the influence of determinants on it, risk assessment, as well as the development and implementation of preventive measures aimed at preserving, strengthening the health and social well-being of the population; practicing the skills of working with medical regulatory documents, determining and analyzing morbidity indicators: general, infectious, hospitalized, for the most important socially significant diseases, with temporary loss of working capacity

Current assessment criteria for practical training:

Rating	Evaluation criteria
Perfectly "5"	It is presented to the applicant when he shows deep, solid and systematic knowledge in the scope of the curriculum, answers all questions without mistakes, reasonably formulates conclusions, using the materials presented for the independent work of the applicant, competently and consistently, with knowledge of the methodology, completed practical work ; using scientific terms and concepts correctly.
Fine "4"	The acquirer reveals the main content of the educational material; gives incomplete definitions of concepts; admits inaccuracies when using scientific terms, vaguely formulates conclusions, performed practical work, but made minor mistakes during the research.
Satisfactorily "3"	The applicant reproduces the basic educational material, but makes significant mistakes when presenting it, gives simple examples, definitions of concepts are insufficient, characterizes general issues of social medicine.
Unsatisfactorily	The applicant discloses the content of the educational material fragmentarily, makes gross mistakes in the definition of concepts

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"2"	and when using terminology, did not complete the practical work.
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Credit is given to the applicant who completed all tasks of the work program of the academic discipline, took an active part in practical classes, completed and defended an individual assignment and has an average current grade of at least 3.0 and has no academic debt.

Assessment is carried out in the last class before the beginning of the examination session (with the tape system of learning. The grade for the assessment is the arithmetic mean of all components on a traditional four-point scale and has a value that is rounded to 2 (two) decimal places using the statistical method.

The obtained average score for the academic discipline for applicants who have successfully mastered the work program of the academic discipline is converted from a traditional four-point scale to points on a 200-point scale, as shown in the table:

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;

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- compliance with the legislation on copyright and related rights;
- 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 Odessa National Medical University, respectively Code of Academic Ethics and Relations of the University Community of Odessa National Medical University, Regulation on prevention and detection of academic plagiarism in research and educational work of higher education applicants, scientists and teachers of Odesa National Medical University.