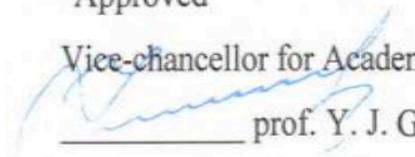


Vinnitsya National Pirogov Memorial Medical University

"Approved"

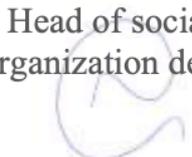
Vice-chancellor for Academic Affairs

  
\_\_\_\_\_ prof. Y. J. Guminskiy

"31th" of august 2020 year

"Agreed "

Head of social medicine and health care  
organization department

  
\_\_\_\_\_ prof. Ocheredko O.M.

"27th" of august 2020 year

Head of the department of infection diseases

  
\_\_\_\_\_ prof. Moroz L.V.

"27th" of august 2020 year

**SYLLABUS  
of academic discipline**

**CC 48 "EPIDEMIOLOGY AND PRINCIPLES OF EVIDENCE MEDICINE"**

Specialty	222 Medicine
Educational level	the second (master`s) level
Educational programme	EPP Medicine, 2020
Academic year	2020-2021
Department	Department social medicine and public health department of infection diseases
Lecturer (if lectures are given)	Professor, MD, PhD O. M. Ocheredko Professor, MD, PhD L.V. Moroz
Contact information	<a href="mailto:socmed@vnmdu.edu.ua">socmed@vnmdu.edu.ua</a> str. Pirogova, 56 (morphological building), (0432) 55-39-57 <a href="mailto:infection@vnmdu.edu.ua">infection@vnmdu.edu.ua</a> Khmelnytsky highway, 96 (Vinnitsya City Clinical Hospital №1, Department of Infectious Diseases with a course of epidemiology ).
Syllabus compiler	assistant, Ph.D. Bondaruk I. Yu. assistant Akhmedova A.A.

## 1. Status and structure of the discipline

Discipline status	Compulsory
Discipline code in EPP/ discipline place in EPP	CC 48, discipline of general training or professional training
Course / semester	5th year (IX semesters)
The amount of discipline (the total number of hours / number of credits ECTS)	90 hours / 3 credits ECTS
The structure of the discipline	Lectures – 8 hours Practical classes – 32 hours Independent work – 50 hours
Number of content modules	1 module
Language of study	English
Form of study	Full-time ( <i>or remote full-time by order</i> )

## 2. Description of the discipline

**Short annotation of the course, relevance.** The subject area of the discipline is the formation of a system of theoretical knowledge, skills and practical skills with in-depth study of the theory of transmission of infectious diseases, the role of biological and socio-economic factors in the development of the epidemic process; ideas about the patterns of the epidemic process of infectious diseases, methods of epidemiological research; determination of diagnostic methods. The thematic plans of practical classes include issues of general and special epidemiology and biosafety. The general epidemiology includes the study of general patterns and manifestations of the epidemic process, the epidemiological method of research, measures to interrupt the transmission mechanism (disinfection and sterilization), modern means of prevention of 3 infectious diseases and methods of their use, anti-epidemic measures in infectious diseases. In the section of special epidemiology students study the epidemiological features of different groups of infectious diseases; infectious diseases that occur during the provision of medical and preventive care and areas of preventive work for them. Principles of evidence-based medicine as a discipline: is a guiding and connecting link in the study of modern principles of choice of patient management tactics, theoretical and methodological foundations of social medicine, health care organization, biostatistics; integrates with clinical disciplines, social medicine, health care organization, biostatistics; provides a high level of medical training; lays the foundation for students to further master their knowledge of relevant theoretical and clinical professional and practical disciplines (social medicine and health care, clinical immunology, infectious diseases with epidemiology, internal medicine, surgery, pediatrics, etc.).

**Prerequisites.** To successfully master the discipline the student needs knowledge gained in the study of the following disciplines of general training: medical and biological physics, morphological disciplines, microbiology, virology and immunology, physiology, pathophysiology, internal medicine, surgery, neurology, dermatology, epidemiology, otolaryngology, ophthalmology endocrinology, clinical pharmacology, resuscitation, social medicine in the context of improving strategies of population, individual health, patient management; medical technologies (farm, bio, info); health economics; biostatistics; Pharmacoeconomics; medical informatics and computer technology.

**The purpose of the course and its significance for professional activities.** The aim of the course is to study the causes and mechanisms of occurrence and spread of infectious diseases, methods of their prevention and organization of preventive measures. In the general system of medical training the discipline "Epidemiology and principles of evidence-based medicine" occupies an important place given the high prevalence of infectious pathology, the need to form future doctors' clinical thinking, skills and practical skills that provide the ability to interpret the causes and patterns of the epidemic process. documents in the field of epidemiology, ability to conduct epidemiological surveillance of infectious disease and epidemic outbreak and develop measures to eliminate them,

ability to analyse the epidemic situation of the territory and population in the emergency zone, plan appropriate measures and organize their implementation, ability to demonstrate awareness of infectious agents' weapons of mass destruction. The discipline is also aimed at mastering the theoretical foundations, modern principles of evidence-based medicine and areas of practical implementation; planning, organization and tactics of statistical and clinical research; determining the required amount of examinations; methods of validation of data collection and research results; assessment of clinical and statistical significance of the obtained results; mastering the methodological and theoretical foundations of epidemiological and clinical designs, inherent displacements and mixtures, ways to overcome them; methods of formulation and testing of statistical hypotheses; methods of elimination of selection shifts, shifts of measurements, generalization; defining a strategy for finding medical information; organization and conduct of meta-analysis; understanding of screening designs, approaches to validation of diagnostic tests and screening tests, ROC-curves; understanding of prognostic factors and methods of individual forecasting, validation of prognostic estimates; understanding of modern concepts and methods of data analysis, materials and methods presented in scientific publications on the chosen topic / specialization.

**Postrequisites.** In the process of studying the discipline, knowledge is acquired necessary for the formation of future doctors of clinical thinking, skills and practical skills that provide the ability to interpret the causes and patterns of the epidemic process, conduct epidemiological surveys of infectious diseases and outbreaks and develop measures to eliminate them. to analyze the epidemic state of the territory and population in the emergency zone, which involves the application of acquired knowledge, skills and abilities in the process of further training and professional activities. The student also acquires knowledge of health economics in the context of the peculiarities of the economic dimensions of social processes and the peculiarities of data organization; epidemiology in the context of measurements of population processes and information collection plans; health care organizations in the context of subject theories (eg hospital activities, behavioral incentives, insurance), clinical disciplines in the context of assessing the effect of methods of diagnosis and prevention of diseases and their consequences, optimizing the patient's route, department activities (PHC), etc.

### 3. Learning outcomes.

After successful study of the discipline, the applicant will know: the leading factors and patterns of formation of the epidemic process; structure of the epidemic process, sources and ways of transmission of infectious agents; regime-restrictive measures at detection of the center of an infection; legislative documents regulating anti-epidemic work; stages of organization of anti-epidemic work in epidemic centers, providing the population with effective immunobiological drugs; basics of evidence-based medicine as an academic discipline and its role in the system of case management and medical care; basic organizational elements of modern epidemiological, clinical, pharmaco-economic research; methodological bases of information validation for the decision of clinical situations, a choice of optimum decisions in the organization of OZ; theoretical and methodological bases of information integration for the purpose of formation of the substantiated conclusions; Will be able to: collect an epidemic history and conduct an epidemiological examination at the center of the disease; to carry out quality control of disinfectants and disinfection; evaluate the effectiveness of sterilization; to carry out epidemiological monitoring of diseases caused by pathogenic microorganisms; to analyze the principles of obtaining vaccines, methods of their standardization and control, practical use; assess the sanitary condition of objects of sanitary supervision, identify facts that contribute to the emergence and spread of diseases and injuries; determine the tactics of organization of clinical, epidemiological, and pharmacoeconomic research, experiment planning; test the statistical hypothesis, determine and evaluate clinical effects; use modern methods of evidence-based medicine to analyze the results, create an individual prognosis; from a scientific point of view to evaluate the diagnostic (screening) test, method (algorithm) of diagnosis and treatment in a specific situation for a specific group of patients or a patient; solve situational problems.

#### 4. Content and logistic of the discipline

Module 1. Principles of evidence-based medicine	9th semester 45 hours / 1.5 credits	Lectures №№ 1 - 2 Practical classes № 1 – 8 Topics for self- study 1-5
Module 2. Epidemiology.	9th semester 45 hours / 1.5 credits	Lectures №№ 3 - 4 Practical classes № 9 – 16 Topics for self- study 6-8

The discipline includes 15 topics, are divided into 2 thematic modules:

##### **Module 1. Principles of evidence-based medicine.**

Topic 1. Introduction to evidence-based medicine Basic principles of DM and CE. Formulation of focused questions. Basic principles and technologies of searching for scientific information, its evaluation, decision-making on the possibility of using them in practice

Topic 2. Basic concepts of evidence-based medicine. Factors that may distort the results of the study. Basic research plans. The concept of control group in the study. Concepts, types, and techniques of randomization.

Topic 3. Questions of critical evaluation of clinical work. Adequacy assessment. Validity assessment. Balance of groups at the initial level. Displacement due to competing interventions. Crossover (pollution). Adequacy of compliance. Preservation of cohorts. Correctness of measurement of results. The principle of intent to treat. Applicability.

Topic 4. Measurements of the effect of treatment. The amount to be treated for an additional unit of effect (NNT). Interpretation of treatment effect measurements. Advantages and disadvantages of different measurements of the effect of treatment. The amount to be treated (NNT) in clinical use. Risk difference (RD). Absolute risk reduction (ARR). Risk ratio or relative risk (RR). Odds Ratio (OR)

Topic 5. Diagnostic test: Basic concepts. Clinical and diagnostic process. Dichotomous and multilevel scales for measuring results. Probability of pre-testing. Post-test probability. Predictor test values. Sensitivity and specificity.

Topic 6. Systematic review and meta-analysis: fundamental concepts. The scope of meta-analysis. The need for information reviews. Traditional (factual) reviews. Strengths of traditional reviews. Restrictions on traditional reviews. Systematic reviews compared to meta-analysis. Strengths of systematic reviews / meta-analysis. The process of meta-analysis. Basic steps.

Topic 7. Forecast. Forecasting models. Confidence interval of the forecast. Models of fixed and randomized effects. Evaluation of the validity of the forecast. Evaluation of forecast results. Evaluation of the applicability of the forecast. Clinical scenario against personal prediction. Connection with decision analysis. Communication with designs and power analysis

##### **Module 2. Epidemiology.**

Topic 1. The doctrine of the epidemic process. Anti-epidemic measures in foci of infectious diseases. Anti-epidemic work of a district (family) doctor and an infectious disease doctor.

Topic 2. Deratization. Disinsection. Disinfection and sterilization.

Topic 3. Immunoprophylaxis of infectious diseases. Calendar of preventive vaccinations. Legal aspects of vaccine prophylaxis. Organization and conduct of vaccinations. Evaluation of the effectiveness of immunoprophylaxis. Urgent immunoprophylaxis.

Topic 4. Epidemiological research method and its structure. Planning of anti-epidemic and preventive measures. Analytical and experimental methods in epidemiological studies. Anti-epidemic measures in foci of infections with fecal-oral transmission mechanism (shigellosis, typhoid fever and paratyphoid fever, hepatitis A).

Topic 5. Anti-epidemic measures in foci of infections with aerosol transmission (diphtheria, meningococcal infection, measles, whooping cough, mumps).

Topic 6. Nosocomial infections and their prevention. Features of preventive and anti-epidemic measures in treatment and prevention facilities of dental profile.

Topic 7. Features of anti-epidemic measures in cases of emergencies in peacetime and in conditions of quarantine infections.

Topic 8. Anti-epidemic protection of troops, bacteriological intelligence in terms of registration of epidemic outbreaks. Final modular control.

The topics of the lecture course reveal the problematic issues of the relevant sections of the discipline. Practical classes provide a theoretical justification of the main issues of the topic and the acquisition of the following practical skills:

1. examination and report of the thematic patient;
2. solving situational and emergency tasks;
3. consideration of test tasks.
4. planning, organization and tactics of statistical and clinical research;
5. determination of the required volume of examinations;
6. methods of validation of data collection and research results;
7. ability to calculate and use different population measures of communication, parameters of statistical tests of hypotheses;
8. assessment of clinical and statistical significance of the obtained results;
9. mastering the methodological and theoretical foundations of epidemiological and clinical designs, inherent displacements and mixtures, ways to overcome them;
10. methods of formulation and testing of statistical hypotheses;
11. methods of elimination of selection shifts, shifts of measurements, generalization;
12. definition of strategy of search of medical information;
13. organization and conduct of meta-analysis;
14. understanding of screening designs, approaches to validation of diagnostic tests and screening tests, ROC-curves;
15. understanding of prognostic factors and methods of individual forecasting, validation of prognostic estimates;
16. determination of methods of graphic representation of results of clinical researches and statistical analysis within the methodology of evidence-based medicine, decision tree;
17. understanding the terminology of evidence-based medicine, modern data analysis.

The student's independent work provides preparation for practical classes and intermediate tests, study of topics for independent extracurricular work, writing essays, preparation of presentations, tables. The control of mastering the topics of independent extracurricular work is carried out at the intermediate control classes and the final control of the discipline.

Individual work includes the study of scientific literature, preparation of reviews on the topics provided for presentation at the meetings of the student scientific circle, the implementation of scientific and practical researches, participation in specialized competitions, scientific and practical conferences and organization of students' research works.

Thematic plans of lectures, calendar plans of practical classes, thematic plan of independent extracurricular work, volume and directions of individual work are published on the website of the department.

The route for obtaining materials:

1. Department of Infectious Diseases with a course in epidemiology / Student / Full-time study / Medicine / 5th year / Educational and methodical materials / or at the link <https://www.vnm.edu.ua/> department of Infectious Diseases with a course of epidemiology #.
2. Department of Social Medicine and Health Care Organization / Student / Full-time study / Medicine / 5th year / Educational and methodical materials / or [https://www.vnm.edu.ua/department of Social Medicine and Organization of public health services](https://www.vnm.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services).

Access to the materials is carried out through the student's corporate account [s000XXX@vnm.edu.ua](mailto:s000XXX@vnm.edu.ua).

## 5. Forms and methods of monitoring academic performance

Current control in practical studies	Methods: <i>oral or written survey, testing, electronic survey, solving situational problems, conducting laboratory studies, interpreting them and evaluating their results (drawing up a protocol in a workbook)</i>
Final control of the discipline – <i>grading test</i>	Methods: pre-examination testing, oral questioning (according to the Regulation of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link <a href="https://www.vnmu.edu.ua/General information">https://www.vnmu.edu.ua/General information</a> ))
Learning success diagnostic tools	Theoretical questions, tests, clinically-oriented situational tasks, practical tasks, practical skills demonstration

## 6. Assessment criteria

Knowledge assessment is carried out in accordance with the Regulations of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link <https://www.vnmu.edu.ua/General information>)

Continuous assessment	On a four point system of traditional assessments: 5 «excellent», 4 «good», 3 «satisfactory», 2 «unsatisfactory»
Final control of the discipline	Exam grade: 71-80 points - "excellent" 61-70 points - "good" 50-60 points - "satisfactory" Less than 50 points - "unsatisfactory" / did not pass
Discipline assessments:	Current academic assessment - from 72 to 120 points (conversion of the average traditional assessment of practical class on a 120-point scale): 60% of the grade for the discipline Final control - from 50 to 80 points: 40% of the grade for the discipline Individual work - from 1 to 12 points From 122 to 200 points in total.

### Discipline Score Scale: National and ECTS

The sum of grades for all types of educational activities	Score ECTS	Score on a national scale	
		For exam, course project (work), practice	for credit test
180-200	<b>A</b>	excellent	credited
170-179,9	<b>B</b>	good	
160-169,9	<b>C</b>		
141-159,9	<b>D</b>	satisfactory	
122-140,99	<b>E</b>	satisfactory	-
120-140,99	<b>E</b>	-	credited
119-61	<b>FX</b>	unsatisfactory with the possibility of reassembly	is not credited with the possibility of reassembling
1-60	<b>F</b>	unsatisfactory with a mandatory reexamination of discipline	is not credited with mandatory reexamination of discipline

## **Criteria for assessing student knowledge**

### **Assessment of oral / written response during the current control**

The grade "excellent" is given to a student who has deeply and comprehensively mastered the theoretical material, competently and logically teaches it. He is fluent in Latin terminology, clearly answers non-standard questions on the topic of the lesson, is able to link the material of the topic with previously studied sections, which indicates knowledge of the recommended literature and the ability to analyze the material studied, and clearly demonstrates the importance of theoretical knowledge for practice. Medicine

The grade "good" is given to a student who knows and has a good theoretical material, teaches it correctly, does not allow inaccuracies in the answer, is able to reveal the topic from the standpoint of its medical significance and practical application, but the answers do not go beyond the textbook, guidelines.

A grade of "satisfactory" is given to a student who knows the basic concepts and definitions of the studied topic, but admits significant inaccuracies or has difficulty in formulating the answer, does not understand the medical aspects of the topic, can not relate theoretical material to practice.

The grade "satisfactory" is given to a student who knows the basic concepts and definitions of the studied topic, but admits significant inaccuracies or has difficulty in formulating the answer, does not understand the medical aspects of the topic, can not relate theoretical material to practice.

The grade "unsatisfactory" is given to a student who does not know the theoretical foundations of the topic, makes gross mistakes in answering, does not understand the basic concepts and definitions, can not explain the importance of theoretical material for practical medicine.

### **Assessment of practical skills during the current control**

A grade of "excellent" is given to a student who knows the principles and sequence of practical tasks, is able to correctly calculate and evaluate public health indicators and performance indicators of health care facilities, correctly fills in medical records, demonstrates proper performance of necessary practical skills, and true with clear wording of generalizations and conclusions, draws up a protocol.

A grade of "good" is given to a student who makes inaccuracies in the practical task, but is able to identify errors and can demonstrate the performance of practical skills in general, correctly fills out medical records, accurately draws up research results in the protocol of the practical lesson.

A grade of "satisfactory" is given to a student who knows the basics of the practical task, but has difficulty in calculating and evaluating public health indicators and performance indicators of health care facilities, can not demonstrate the correct sequence of practical skills, makes mistakes in filling out medical records, can not fully interpret the results obtained, sloppily draws up a protocol.

A grade of "unsatisfactory" is given to a student who cannot demonstrate practical skills, has significant difficulties in performing practical tasks, can not correctly fill in medical records, violates the procedure for practical work, does not register it in the protocol.

### **Evaluation of test tasks during the current control**

The grade "excellent" is given to the student who at carrying out test control is allowed no more than 10% of incorrect answers (volume of correct answers 90-100%). Provides correct answers to all test questions when solving clinically-oriented test tasks.

A grade of "good" is given to a student who makes no more than 20% of mistakes during the test. (the volume of correct answers is 70-89%). Provides correct answers to most test questions when solving clinical-oriented test tasks.

The grade "satisfactory" is given to the student who makes mistakes in no more than 40% of test tasks (the volume of correct answers is 50-69%). When solving clinically-oriented test tasks, it provides the correct answers to only some questions to the test.

A grade of "unsatisfactory" is given to a student who correctly solves less than 50% of the test tasks in a test. When solving clinical-oriented test tasks, he cannot provide the correct answers to the test questions.

### **Evaluation of the oral answer during the final control (differential test)**

The grade "excellent" is given to the student who correctly answered all questions, during the answer revealed comprehensive and deep knowledge of a program material, closely connects theoretical concepts with practice, expresses own reasonable thoughts concerning the decision of concrete organizational and medical situations, in rendering medical care. When solving a situational problem, he not only gets the right result, but also knows how to interpret it correctly.

The grade "good" is deserved by the student who at the answer shows full knowledge of a program material, correctly uses theoretical positions at the decision of a situational problem.

A student who shows knowledge of the basic program material, but has not mastered its details, admits inaccuracies, insufficiently correct formulations, violates the sequence in the presentation of program material deserves a grade of "satisfactory". Experiencing difficulties in performing situational tasks.

A grade of "unsatisfactory" is given to a student who does not master certain parts of the program material, is not able to solve a situational problem on his own and make fundamental conclusions and generalizations.

The calculation of individual points is carried out on the basis of the Regulations on the organization of the educational process at **of National Pirogov Memorial Medical University, Vinnytsya** (Vinnytsia, 2020). (link <https://www.vnmu.edu.ua/general-information/main-documents>)

- 12 points, which are added to the assessment of the discipline - are added for prizes at interuniversity competitions in the discipline and interuniversity and international (foreign) scientific conferences with the availability of printed work.
- 11-10 points - are added for prizes at intra-university competitions and scientific conferences with the presence of printed work.
- 10 points - are given to the assessment of the discipline for participation (if took part, but did not receive a prize) in interuniversity competitions in the discipline and interuniversity and international (foreign) scientific conferences with the availability of printed work.

- 8 points - are added to the assessment of the discipline for participation (if took part, but did not receive a prize) in intra-university competitions, scientific conferences of the institution with the presence of printed work.
- up to 6 points - are added to the assessment of the discipline for the manufacture of diagrams, tables, multimedia and videos at the department - taking into account the importance of the work performed.

## 7. Policy of discipline / course

The student has the right to receive high-quality educational services, access to contemporary scientific and educational information, qualified advisory assistance during the study of discipline and mastering practical skills. The policy of the department during the providing of educational services is a student-centered, based on normative documents of the Ministry of Education and the Ministry of Health of Ukraine, the Statute of the University and the Procedure for the Providing of Educational Services regulated by the main principles of the organization of the educational process in National Pirogov Memorial Medical University, Vinnytsya and the principles of academic integrity ( link [https://www.vnmu.edu.ua/General information](https://www.vnmu.edu.ua/General%20information)).

**Adherence to the rules of National Pirogov Memorial Medical University, Vinnytsya, safety techniques in practical classes.**

**Requirements for preparation for practical classes.** The student should be prepared for a practical lesson.

The student should come to class on time, without delay. A student who is more than 10 minutes late for class is not allowed to the last and must work it in the prescribed manner. In practical classes, the student must be dressed in a work uniform (medical gown, hat). Students who do not have a work uniform are not allowed to study.

The student must follow the rules of safety in practical classes and during the stay in the department.

When discussing theoretical issues, students should demonstrate tolerance, courtesy and respect for their colleagues and the teacher; when performing practical tasks, the workplace should be kept in order and cleaned after the practical work.

**Usage of mobile phones and other electronic devices.** The use of mobile phones and other electronic devices in the classroom is allowed only during electronic testing or surveys.

**Academic integrity.** When studying the discipline, the student must be guided by the Code of Academic Integrity and Corporate Ethics of National Pirogov Memorial Medical University, Vinnytsya (link : [https://www.vnmu.edu.ua/General information](https://www.vnmu.edu.ua/General%20information))/ Code of Academic Integrity). In case of violation of the norms of academic integrity during the current and final controls student receives a grade of "2" and must work it out to his teacher in the prescribed manner within two weeks after receiving an unsatisfactory assessment).

**Missed classes.** Missed classes are practiced in the manner prescribed by the Regulations on the organization of the educational process in National Pirogov Memorial Medical University, Vinnytsya (link [https://www.vnmu.edu.ua/ General information / Basic documents](https://www.vnmu.edu.ua/General%20information)) at the time specified in the schedule of exercises (published on the website of the department [https://www.vnmu.edu.ua/department of Social Medicine and Organization of public health services](https://www.vnmu.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services) and [https://www.vnmu.edu.ua/department of Infectious Diseases with a course of epidemiology](https://www.vnmu.edu.ua/department%20of%20Infectious%20Diseases%20with%20a%20course%20of%20epidemiology)) to the teacher on duty. To complete the missed lesson, the student must take a test and answer questions in writing or orally to the topic of the lesson. The practice of missed lectures is carried out after providing a synopsis of lecture material or preparing your own presentation on the topic of missed lectures.

**The procedure for admission to the discipline final control** is given in the Regulations of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link [https://www.vnmu.edu.ua/General information](https://www.vnmu.edu.ua/General%20information)). To the final control allowed students who do not have missed practical classes and lectures and received an average traditional grade of at least "3".

**Additional points.** Individual points in the discipline (from 1 to 12) that student can receive for individual work, the amount of which is published on the website of the department in the

educational methodical materials of the discipline, the number of points is determined by the results of IRS according to Regulation of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link [https://www.vnmu.edu.ua/General information](https://www.vnmu.edu.ua/General%20information)).

**Conflict resolution.** In case of misunderstandings and complaints to the teacher because of the quality of educational services, knowledge assessment and other conflict situations, student should submit his / her claims to the teacher. If the issue is not resolved, the student has the right to apply to the head of the department according to Complaints Consideration Procedure in National Pirogov Memorial Medical University, Vinnytsya (link [https://www.vnmu.edu.ua/General information](https://www.vnmu.edu.ua/General%20information))

**Politics in terms of remote learning.** Distance learning regulated by the Regulations of the elements of remote learning in National Pirogov Memorial Medical University, Vinnytsya ([https://www.vnmu.edu.ua/ General information](https://www.vnmu.edu.ua/General%20information)). The main training platforms for studying are Microsoft Team and Google Meets. Practical classes and lectures, exercises and consultations during distance learning is published on the website of the department [https://www.vnmu.edu.ua/department of Social Medicine and Organization of public health services and https://www.vnmu.edu.ua/department of Infectious Diseases with a course of epidemiology](https://www.vnmu.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services%20and%20https://www.vnmu.edu.ua/department%20of%20Infectious%20Diseases%20with%20a%20course%20of%20epidemiology).

**Feedback from teachers** is via messengers (Viber, Telegram, WhatsApp) or e-mail (at the teacher's choice) during working hours.

## 8. Educational resources.

### Main literature.

1. Oxford Textbook of Global Public Health, 6 edition. Edited by Roges Detels, Martin Gulliford, Quarraisha Abdool Karim and Chorh Chuan Tan. – Oxford University Press, 2017. – 1728 p.
2. Medical Statistics at a Glance Text and Workbook. Aviva Petria, Caroline Sabin. – Wiley-Blackwell, 2013. – 288 p.

### Supplementary reading

1. Board Review in Preventive Medicine and Public Health. Gregory Schwaid. - ELSEVIER., 2017. – 450 p.
2. Donaldson`s Essential Public Health, Fourth Edition. [Liam J. Donaldson](#), [Paul Rutter](#) – CRC Press, Taylor&Francis Group, 2017 – 374 p.
3. Oxford Handbook of Public Health Practice, Fourth Edition. Charles Guest, Walter Ricciardi, Ichiro Kawachi, Iain Lang. – Oxford University Press, 2012. – 656 p.
4. Primer of Biostatistics, Seventh Edition. Stanton A. Glantz – McGraw-HillEducation, 2012. – 320 p.
5. Health economics: textbook. – Vinnytsia: Nova Knyga, 2010. – 112 p.
6. Oxford Handbook of infectious diseases and microbiology. Oxford University Press, 2017, 914 p.
7. Essentials of clinical infectious diseases 2<sup>nd</sup> edition. William F. Wright. Daemos Medical, 2018 , 488 p.
8. Netter`s Infectious diseases. Saunders, 2012, 623 p.
9. Harrison`s Infectious diseases. McGraw-Hill Prof Med/Tech, 2010, 1313 p.
10. Jawetz, Melnick & Adelberg`s Medical Microbiology 28<sup>th</sup> edition. McGraw-Hill, 2019.
11. Encyclopedia of Infectious Diseases, Michel Tibayrenc. Wiley, 2007, 806 p.
12. Infectious Diseases: A Clinical Short Course, Fourth Edition. [Frederick S. Southwick](#). McGraw-Hill Education, 2020, 735 p.
13. Atlas of human infectious diseases. Heiman F L Wertheim. Wiley-Blackwell, 2012, 311 p.
14. Mims' Pathogenesis of Infectious Disease 6<sup>th</sup> edition. Academic press, 2015, 328 p.
15. Pathology of Infectious Diseases, by Gary W. Procop. Saunders, 2014, 678 p.
16. Emergency management of infectious diseases, Rachel Chin. Cambridge university press, 2008, 577 p.
17. Gordis Epidemiology 6<sup>th</sup> edition. Elsevier, 2019, 434 p.
18. Essentials of Epidemiology in Public Health, Fourth Edition, Jones & Bartlett Learning, 2020, 541 p.

19. Introduction to Epidemiology, Seventh Edition, Ray M. Merrill. Jones & Bartlett Learning, 2016, 360 p.
20. Handbook of epidemiology. Springer-Verlag New York, 2014, 2489 p.
21. Infectious Disease Epidemiology: Theory and Practice. Jones & Bartlett Learning, 2012, 981 p.
22. Practical healthcare epidemiology. Cambridge university press, 2018, 455 p.

**Information resources**

1. U.S. National Library of Medicine <http://www.nlm.nih.gov/>
2. European Health for All Database [www.euro.who.int/ru/home](http://www.euro.who.int/ru/home)
3. Cochrane Center for Evidence-Based Medicine [www.cebm.net](http://www.cebm.net)
4. Cochrane Library [www.cochrane.org](http://www.cochrane.org)
5. British Medical Journal [www.bmj.com](http://www.bmj.com)
6. Evidence-Based Medicine [www.evidence-basedmedicine.com](http://www.evidence-basedmedicine.com)
7. Centers for diseases control and prevention - <http://www.cdc>

**Educational and methodological support** of the discipline is published on the website of the department ([https://www.vnmu.edu.ua/department of Social Medicine and Organization of public health services](https://www.vnmu.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services) and [https://www.vnmu.edu.ua/ department of Infectious Diseases with a course of epidemiology](https://www.vnmu.edu.ua/department%20of%20Infectious%20Diseases%20with%20a%20course%20of%20epidemiology)). Consultations are held twice a week according to the schedule.

**The timetable and distribution of groups** with assigned teachers are published on the web page of the department ([https://www.vnmu.edu.ua/department of Social Medicine and Organization of public health services](https://www.vnmu.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services) and [https://www.vnmu.edu.ua/department of Infectious Diseases with a course of epidemiology](https://www.vnmu.edu.ua/department%20of%20Infectious%20Diseases%20with%20a%20course%20of%20epidemiology)).

Questions to the intermediate and final semester control (credit) of the discipline are published on the web page of the department ([https://www.vnmu.edu.ua/department of Social Medicine and Organization of public health services](https://www.vnmu.edu.ua/department%20of%20Social%20Medicine%20and%20Organization%20of%20public%20health%20services) and [https://www.vnmu.edu.ua/department of Infectious Diseases with a course of epidemiology](https://www.vnmu.edu.ua/department%20of%20Infectious%20Diseases%20with%20a%20course%20of%20epidemiology)).

The syllabus of the discipline "EPIDEMIOLOGY AND PRINCIPLES OF EVIDENCE " was discussed and approved at the meeting of the department of social medicine and public health (Protocol №1 from 27/08/2020) and department of infection diseases with a course of epidemiology (Protocol №\_\_ from \_\_\_\_ 2020).

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