PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Social Medicine and Humanitarian Disciplines

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

"EPIDEMIOLOGY"

LEVEL OF HIGHER EDUCATION Second (master's) level
DEGREE OF HIGHER EDUCATION Master's degree
BRANCH OF KNOWLEDGE 22 Healthcare
SPECIALTY 222 Medicine

Reviewed and approved
at the meeting of the Academic Council
Protocol No. 1, dated August 31, 2019

Kyiv 2019

Working program of education discipline Neurology for the preparation of students of higher education of the second (master's) level of higher education in specialty 222 Medicine.

INTRODUCTION

Study program of academic discipline " Epidemiology" was compiled in accordance with the educational and professional training program of the specialist direction 222 "Medicine". The study of epidemiology is carried out during the IX semester of the 5th year of study, the final goals of the discipline are the same, and therefore a single program in epidemiology has been developed for the specified specialties

The subject of study of the educational discipline is the Epidemic process .

Interdisciplinary connections: the program is based on students' study of relevant sections of fundamental disciplines - medical biology, microbiology, virology and immunology, infectious diseases, biostatistics, social medicine and integrates with these disciplines.

The program of the academic discipline is structured by one module " Epidemiology " , which includes two modules :

1. General epidemiology
2. Special epidemiology

Description of the academic discipline

<table>
<tr><th>Name of indicators</th><th>Field of knowledge, direction of training, educational and qualification level</th><th>Characteristics of the academic discipline</th></tr>
<tr><td>The number of credits is 1,5</td><td>Branch of knowledge
22 "Healthcare"
(code and name)</td><td>full-time education</td></tr>
<tr><td rowspan="12">The total number of hours is 45</td><td rowspan="5">Specialty:
222
" Medicine "</td><td>Normative</td></tr>
<tr><td>A year of training</td></tr>
<tr><td>5 th</td></tr>
<tr><td>Semester</td></tr>
<tr><td>9 th</td></tr>
<tr><td rowspan="7">Education level:
master</td><td>Lectures</td></tr>
<tr><td>10 hours</td></tr>
<tr><td>Practical, seminar</td></tr>
<tr><td>20 hours</td></tr>
<tr><td>Laboratory</td></tr>
<tr><td>0 hours</td></tr>
<tr><td>Independent work</td></tr>
<tr><td>15 hours</td></tr>
<tr><td>Individual tasks:</td></tr>
<tr><td>Type of control:
Current and final, modular</td></tr>
</table>

The purpose and tasks of the educational discipline.

1.1. The purpose of teaching the academic discipline " Epidemiology" is the formation of a system of basic knowledge on the theory of the mechanism of transmission of infectious disease agents, practical skills and abilities for planning and implementing anti-epidemic and preventive measures for the most common and especially dangerous infectious diseases based on the use of descriptive, analytical, experimental and prognostic epidemiological methods of research

The ultimate goals of studying the discipline.

- Interpret the causes and patterns of development of the epidemic process, the main regulatory documents in the field of epidemiology.
- To disseminate knowledge about communicable disease epidemiology, including methods to identify communicable disease outbreaks, guidelines to control outbreaks and methods to prevent outbreak development and spread.
- To create awareness about issues related to epidemics of communicable and non-communicable disease.
- to provide students with up-to-date trends in epidemiology development, including the role of molecular epidemiology.
- Conduct an epidemiological survey of the center of an infectious disease and an epidemic outbreak and develop measures for their elimination.
- Analyze the epidemic situation of the territory and population in the emergency zone, plan appropriate measures and organize their implementation.
- To provide knowledge about research methods to identify or confirm an impact of a factor in the disease incidence; how to prove causality.
- To teach students about methods on how to assess population health, and to provide knowledge about modifiable and non-modifiable determinants of health.
- Demonstrate awareness of infectious diseases as weapons of mass destruction.
- To show the role of epidemiology in the preparation of recommendations.

1.2. The main tasks of studying the discipline " Epidemiology" are:

- disclosure and clarification of the theoretical foundations of epidemiology as a medical science
- the use of the epidemiological method in medical practice to study the morbidity of the population
- implementation of anti-epidemic and preventive measures.

1.3. According to the requirements of the educational and professional program, students must:

know:

- normative documents of Ukraine in the field of epidemiology
- to know the measures for localization and elimination of the center of an infectious disease
- algorithm for assessing the epidemic state of the territory
- accounting and reporting documentation of the Ministry of Health of Ukraine
- quarantine measures for the most common and particularly dangerous infectious diseases
- the identification and testing of risk factors, the advantages and disadvantages of different types of epidemiological studies and measures demonstrating the presence of cause and effect relationships
- epidemiology of infectious and chronic diseases, ways of preventing their occurrence at various stages of the natural history of the disease and the role of epidemiological surveillance
- ethical, social and legal conditions for practicing the medical profession and the principles of health promotion, based on scientific evidence and accepted standards
- methods of conducting scientific research
- legal European regulations and basic methods of medical experimentation and other medical research, including basic methods of data analysis

- methods of individual and population health assessment, different systems of disease classification and medical procedures

be able:

- to interpret the causes of occurrence and patterns of development of the epidemic process
- conduct an epidemiological survey of the center of an infectious disease and an epidemic outbreak and develop measures for their elimination
- analyze the epidemic situation of the territory and population in the emergency zone, plan appropriate measures and organize their implementation
- demonstrate the ability to enter accounting and reporting documentation
- plan own learning activities and constantly learn in order to update own knowledge
- inspire the learning process of others
- communicate and share knowledge with colleagues in a team
- critically evaluate the results of scientific research and adequately justify the position
- describe the demographic structure of the population, and based on that assess the health problems of the population
- collect information on the presence of risk factors for communicable and chronic diseases and plan prevention activities at different levels of prevention
- interpret the measures of the incidence of diseases and disabilities
- to plan preventive and quarantine measures for the most common and particularly dangerous infectious diseases
- assess the epidemiological situation of diseases commonly found in Ukraine, neiberhood countries and in the world

is ready to:

- formulate conclusions from own measurements or observations
- use objective sources of information
- promote health-promoting behaviors
- perceive and recognize own limitations and self-assessing educational deficits and needs

3 . Information volume of the academic discipline

Module 1. Epidemiology (consists of 2 content modules).

Content module 1. General epidemiology.

Specific goals :

- Organization and implementation of anti-epidemic measures in centers of infectious diseases.
- Determine the need for deratization, disinsection, and disinfection in a specific center of an infectious disease and the method of its implementation.
- To be able to fill out the documentation regarding the registration and accounting of infectious patients.
- Organize immunoprophylaxis. Be able to make a vaccination plan.
- Carry out legal substantiation of scheduled and unscheduled vaccinations.
- Draw up documentation (accounting and reporting) about vaccination.
- Identify the priority problems of prevention of infectious diseases by groups and nosological forms.
- Interpret the epidemiological, social and economic significance of individual nosological forms.
- Apply techniques of the epidemiological research method (descriptive, analytical, experimental, prognostic).

- To analyze the structure and level of morbidity of the population by nosological forms.
- Conduct an analysis of long-term and annual morbidity dynamics, determine the trend, cyclical and seasonal fluctuations of the incidence rate, make a forecast of morbidity.
- Be able to investigate outbreaks of infectious diseases and organize measures to eliminate them.
- Define groups, collectives, territories, time and risk factors of morbidity.
- Be able to interpret the results of epidemiological cohort studies and case-control studies.

Topic 1. Teaching about the epidemic process

Basic epidemic concepts. The theory of the transmission mechanism L.V. Gromashevsky. The causes and patterns of development of the epidemic process.

Topic 2 Anti-epidemic measures in foci of infectious diseases. Anti-epidemic work of family (district) doctor and infectious disease doctor

Center of infectious disease. Examination of the center of an infectious disease. Completing the relevant documentation. Anti-epidemic measures in the cell Ordered list of anti-epidemic measures: regarding the patient and the carrier (directed at the source of infection); on decontamination of the environment (aimed at breaking the transmission mechanism); regarding persons who communicated with the source of the infectious disease (susceptible persons). Responsibilities of a family (district) doctor and an infectious disease doctor in matters of anti-epidemic work.

Topic 3. Deratization. Disinsection. Disinfection and sterilization

The concept of deratization. Types and methods of deratization. The concept of disinsection. Types and methods of disinsection. The concept of disinfection. Types and methods of disinfection. Classification of disinfectants. Disinfection chambers, principles of their arrangement and purpose. Disinfection quality control. The concept of sterilization. Stages of sterilization. Quality control of pre-sterilization processing.

Topic 4. Immunoprophylaxis of infectious diseases. Calendar of preventive vaccinations. Legal aspects of vaccine prevention

Types of immunity and their characteristics. The influence of the level of population immunity of the population on infectious morbidity. Calendar of preventive vaccinations of Ukraine, its sections. Requirements for immunobiological drugs. Methods of introducing immunobiological drugs into the body. List of medical contraindications to preventive vaccinations. Post-vaccination reactions and adverse events. Preparations for scheduled immunoprophylaxis (release form, method of administration, dose, reaction to administration). Assessment of clinical, immunological, economic and epidemiological effectiveness of immunoprophylaxis. Legislation of Ukraine in the field of immunoprophylaxis.

Topic 5. Epidemiological research method and its structure. Planning of anti-epidemic and preventive measures

The concept of the epidemiological research method and its structure. Assessment of prevention problems based on analysis of the structure and level of morbidity by groups and nosological forms of infections. Epidemiological diagnostics. Operational epidemiological analysis. Retrospective epidemiological analysis. Study of manifestations of annual and multi-year dynamics of morbidity. Prediction of manifestations of the epidemic process. Analysis of morbidity by groups, collectives, territories. Planning of anti-epidemic measures. Analytical and experimental epidemiological studies.

Topic 6 Analytical and experimental methods in epidemiological studies

The purpose and tasks of analytical epidemiological methods of research. The essence and methodology of case-control and cohort analytical research. Rules for the formation of the main and control group. Immediate and relative risks of the disease. Epidemiological experiment. Screening examinations of the population. Methods of mathematical modeling in epidemiology.

Content module 2. Special epidemiology.

Specific goals :

- To determine the epidemiological manifestations of the incidence of infections belonging to different groups (respiratory tract infections, intestinal infections, blood infections, and infections of external skin).
- Formulate working hypotheses regarding the risk factors of morbidity in territories, among different population groups and in collectives of specific infectious diseases.
- Interpret the manifestations of the epidemic process of specific nosological forms belonging to different groups of infections: intestinal infections, respiratory tract infections, blood and external skin infections.
- To organize preventive and anti-epidemic measures in centers of specific nosological forms belonging to various groups of infections, in particular: typhoid fever, shigellosis, hepatitis A, cholera, diphtheria, measles, salmonellosis, botulism, poliomyelitis, leptospirosis, meningococcal infection, typhoid fever and diseases Bryl, malaria, hepatitis B and C, HIV infection, tularemia, tick-borne encephalitis, Lassa hemorrhagic fever, Ebola, Marburg, plague .
- Identify ways to overcome stigma and discrimination in medical facilities towards people living with HIV/AIDS.
- Investigation of outbreaks of infectious diseases.
- Use regulatory and instructional documentation of the Ministry of Health of Ukraine to organize the elimination of foci of specific nosological forms belonging to different groups of infections: intestinal infections, respiratory tract infections, blood and external skin infections.

Topic 7. Anti-epidemic measures in foci of infections with fecal-oral transmission mechanism

Epidemiological characteristics of a group of intestinal infections. Factors and ways of transmission of specific nosological forms Manifestations of the epidemic process (incidence level, manifestations of morbidity over time, by territory, among different population groups and by collectives). Preventive and anti-epidemic measures in centers. Investigation of outbreaks of intestinal infections. Differential diagnosis of waterborne and foodborne outbreaks.

Topic 8. Anti-epidemic measures in foci of infections with an aerogenic transmission mechanism

Epidemiological characteristics of the group of respiratory tract infections. Mechanisms, factors and ways of transmission of specific nosological forms. Manifestations of the epidemic process (incidence level, manifestations of morbidity over time, by territory, among different population groups and by collectives). Preventive and anti-epidemic measures in centers.

Topic 9. Anti-epidemic measures in centers of infections with transmissible and contact transmission mechanisms. Protection of individual independent work

Epidemiological characteristics of a group of transmissible infections and infections of external integuments. Factors and ways of transmission of specific nosological forms. Manifestations of the epidemic process (incidence level, manifestations of morbidity over time, by territory, among different population groups and by collectives). Preventive and anti-epidemic measures in centers.

Topic 10 Final modular control

Control of theoretical and practical training.

The structure of the academic discipline

Names of modules and topics	Number of hours			
	In total	including		
		Lec.	Prac.	S.S
Module 1				
Content module 1. General epidemiology.				

Epidemic process. Directions of combating infectious diseases. Anti-epidemic measures in centers of infectious diseases	12	2	6	3
Immunoprophylaxis of infectious diseases	6	1	2	3
Epidemiological research method	6	1	2	3
Together according to content module 1	**23**	**4**	**10**	**9**
Content module 2. Special epidemiology				
Epidemiological characteristics of different groups of infections. Anti-epidemic measures in centers of infectious diseases. Epidemiology of HIV/AIDS. Ways to overcome stigma	7	2	2	2
Infections associated with the provision of medical care. Infection control system	6	2	2	1
Infections are especially dangerous. Sanitary border protection. Anti-epidemic measures in emergency situations	6	2	2	1
Protection of individual independent work	4	-	2	1
Together according to content module 2	**19**	**6**	**8**	**5**
Final modular control	**3**	**-**	**2**	**1**
In total	**45**	**10**	**20**	**15**

Topics of lectures

No	TOPIC
1.	The subject of epidemiology. The doctrine of the epidemic process. Directions of fighting infectious diseases
2.	Epidemiological research method, its structure and content. Epidemiological diagnosis. System of epidemiological surveillance
3.	Current issues of immunoprophylaxis
4.	Epidemiological characteristics of groups of respiratory infections and intestinal infections
5.	Epidemiology of tuberculosis. Infection control for tuberculosis
6.	Epidemiology of HIV/AIDS. Ways to overcome stigma and discrimination in medical facilities towards people living with HIV/AIDS
7.	Epidemiological characteristics of hemocontact infections, infections with a transmissible transmission mechanism, and invasions
8.	Infections associated with the provision of medical care. Preventive and anti-epidemic measures. Infection control system
9.	Sanitary protection of the territory. Infections are especially dangerous

Topics of seminar classes

The curriculum does not include seminar classes.

Topics of practical classes

No	TOPIC
1.	The doctrine of the epidemic process
2.	Anti-epidemic measures in centers of infectious diseases. Anti-epidemic work of family (district) doctor and infectious disease doctor
3.	Deratization. Disinsection. Disinfection and sterilization

4.	Immunoprophylaxis of infectious diseases. Calendar of preventive vaccinations. Effectiveness of immunoprophylaxis
5.	Epidemiological research method and its structure. Planning of anti-epidemic and preventive measures
6.	Analytical and experimental methods in epidemiological studies
7.	Anti-epidemic measures in foci of infections with a fecal-oral transmission mechanism (shigellosis, typhoid and paratyphoid, hepatitis A)
8.	Anti-epidemic measures in foci of infections with an aerogenic transmission mechanism (diphtheria, meningococcal infection, measles, whooping cough, epidemic parotitis)
9.	Anti-epidemic measures in foci of infections with transmissible (malaria, Lyme borreliosis) and contact mechanisms of transmission (HIV infection, hepatitis B and C) Protection of individual independent work.
	Final modular control:
	practical training
	theoretical training

Independent work

No	TOPIC
1.	Preparation for practical classes – theoretical preparation and development of practical skills
2.	Writing individual independent works.
3.	Preparation for the final modular control

5 . Individual tasks.

One of the most important ways to optimize and improve the quality of practical training of students is the performance of individual tasks, the main purpose of which is aimed at a deeper understanding and assimilation of theoretical and practical knowledge, skills and abilities in the discipline, psychological and practical preparation of students to constantly improve their professional level.

The individual task in "Epidemiology" is the performance of individual student independent work (ISRS) on a retrospective epidemiological analysis of infectious diseases, which consists of the following stages:

1. Analysis of the multi-year dynamics of morbidity with determination of the multi-year trend and preparation of the forecast of morbidity for the next year.
2. Analysis of multi-year cyclicality.
3. Analysis of the annual dynamics of morbidity with calculation of the index and seasonality coefficient.
4. Analysis of morbidity by territory.
5. Analysis of morbidity by population groups and collectives.

6. Teaching methods

1. Methods of educational and cognitive activity (study and analysis of the main program sections of the discipline).
2. Methods of stimulating and motivating educational and cognitive activities (solving situational problems, performing interactive tasks, modeling the situation, etc.).
3. Methods of control (self-control, mutual control), correction (self-correction, mutual correction).
4. Methods of increasing the effectiveness of educational and cognitive activities (deepening knowledge through independent work and scientific work, "brainstorming", participation in the work of a scientific student circle, conferences, Olympiads, student scientific forums, etc.).

7. Control methods

1. Method of oral control of theoretical material (interview, discussion).
2. Methods of written control (answers to questions, problem solving, test control).

3. Methods of monitoring practical abilities and skills (solving situational problems, resolving problematic situations, providing practical recommendations).

An approximate list of questions and practical skills for the final control from the relevant content modules and the discipline as a whole

MODULE 1

Content module 1

List of questions

1. The subject and tasks of epidemiology.
2. The main stages of the development of epidemiology (D. Samoilovych, D.K. Zabolotny, L.V. Gromashevskyi, V.D. Belyakov).
3. Epidemic process and its components.
4. Sections of teaching about the epidemic process.
5. Driving forces of the epidemic process.
6. Peculiarities of the epidemic process in anthroponoses and zoonoses. The concept of sapronosis.
7. Quantitative and qualitative manifestations of the epidemic process.
8. Anti-epidemic measures in centers of infectious diseases.
9. Center of infectious disease. Directions for conducting an epidemiological survey of the cell.
10. What determines the boundaries of the center of an infectious disease? Give examples.
11. The purpose and tasks of the epidemiological examination of the center.
12. How are infectious patients detected and reported?
13. KIZ and its functions.
14. Source and reservoir of pathogens of infectious diseases.
15. A sick person and a carrier and their epidemiological significance.
16. Categories of carriers of infectious disease agents.
17. Measures for decontamination of patients and carriers as sources of pathogens of infectious diseases.
18. Epidemiological significance of animals (rodents, domestic animals, etc.).
19. The concept of deratization, types and methods.
20. The theory of the mechanism of transmission of pathogens of infectious diseases L. V. Gromashevskyi. Definition of the transmission mechanism, its links. Factors and ways of transmission of pathogens of infectious diseases.
21. Laws of correspondence of the mechanism of transmission of the primary (epidemiological) localization of the pathogen in the human body.
22. Types of mechanisms of transmission of pathogens of human infectious diseases.
23. Epidemiological significance of arthropods (mosquitoes, flies, ticks, lice, fleas, etc.) as carriers of pathogens of infectious diseases. Types and methods of disinsection.
24. Definition of disinfection, its types and methods. Disinfection quality control.
25. Disinfection chambers, principles of their arrangement and purpose.
26. Sterilization and its stages, quality control.
27. Calendar of preventive vaccinations of Ukraine. Legal aspects of vaccine prevention.
28. Drawing up a plan for preventive vaccinations.
29. Completing accounting and reporting documentation regarding vaccinations.
30. Basic regulatory documents in the field of epidemiology.
31. Epidemiological research method, its structure.
32. Descriptive and evaluation method of epidemiological method.
33. Epidemiological, social and economic significance of infectious disease.
34. Levels of evidence in medicine.
35. Epidemiological diagnostics as the basis of preventive and anti-epidemic work.
36. Operational epidemiological analysis.

37. Methodology of retrospective epidemiological analysis.
38. Analysis of long-term and annual dynamics of morbidity.
39. Manifestations of the epidemic process in the long-term dynamics of morbidity and the causes that determine them.
40. Analysis of the territorial distribution of morbidity.
41. Manifestations of the epidemic process in the annual dynamics of morbidity and the causes that determine them.
42. The structure and level of morbidity of the population by collectives, groups and nosological forms.
43. Concepts of territory, groups, time and risk factors.
44. The importance of the social factor in the development of the epidemic process.
45. The importance of the natural factor in the development of the epidemic process.
46. Analytical and experimental techniques of the epidemiological research method.
47. The essence of analytical research of the "case-control" type.
48. The essence of cohort analytical research.
49. Definition of an epidemiological experiment.
50. Content and purpose of a controlled epidemiological experiment.
51. The content and purpose of an uncontrolled epidemiological experiment.
52. The content and purpose of a natural epidemiological experiment.
53. Prediction of manifestations of the epidemic process.
54. The purpose and features of the organization of screening examinations of the population.
55. Methods of mathematical modeling in epidemiology and their significance.
56. Planning of anti-epidemic and preventive measures.

Content module 2

List of questions

1. Epidemiological classification of infectious diseases.
2. Epidemiological features of the group of intestinal infections.
3. Epidemiological features of the group of respiratory tract infections.
4. Epidemiological features of the group of blood infections.
5. Epidemiological features of the group of infections of external integuments.
6. Epidemiology and prevention of infections associated with the provision of medical care.
7. Organization of sanitary protection of the territory of Ukraine against introduction and spread of infections of international importance.
8. Preventive and anti-epidemic measures for the most common diseases.
9. Quarantine measures for particularly dangerous infectious diseases.
10. Typhoid. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
11. Hepatitis A. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
12. Shigellosis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
13. Cholera. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
14. Poliomyelitis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
15. Influenza and other GR3. Etiological structure, epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
16. Diphtheria. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
17. Measles. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.

18. Tuberculosis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures. Tuberculosis infection control system.
19. Salmonellosis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
20. Botulism. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
21. Meningococcal infection and purulent bacterial meningitis. Etiological structure of purulent bacterial meningitis, epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
22. Tularemia. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
23. Hepatitis B. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
24. Hepatitis C. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
25. HIV infection. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
26. Ways to overcome stigma and discrimination in health care facilities towards people from the highest risk groups living with HIV/AIDS.
27. Malaria. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures
28. Typhus and Brill's disease. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
29. Plague. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
30. Tick-borne encephalitis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
31. Ebola and Marburg hemorrhagic fevers. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
32. Lassa hemorrhagic fever. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.
33. Lyme borreliosis. Epidemiological features (source of pathogens, factors and ways of transmission, manifestations of the epidemic process), preventive and anti-epidemic measures.

An approximate list of practical tasks
for final modular control
Module: "Epidemiology"

1. Determination of the prognosis of the morbidity level for the next year according to the trend line of the multi-year dynamics of morbidity.
2. Determining the level of infection of the population based on the data of selective laboratory studies and its epidemiological assessment.
3. Filling out the annual "Report on certain infectious and parasitic diseases" (form No. 2).
4. Completing the record of infectious diseases (form No. 60).
5. Filling out an emergency notification about a first detected infectious or parasitic disease (form No. 58).
6. Filling out a card of preventive vaccinations (form No. 63) and an individual card of the child's development (form No. 112).
7. Determination of the coefficient of epidemiological effectiveness of vaccinations and its evaluation.
8. Justification of the list of anti-epidemic measures in centers of infectious diseases.

9. Creation of bar charts for visual expression of epidemiological data and identification of groups and risk factors of morbidity.
10. Selection of material for bacteriological research on diphtheria infection.
11. Determination of the coefficient of seasonality of the annual dynamics of morbidity on the diagram of the distribution of morbidity by months of the year and its evaluation.
12. Evaluation of the quality of disinfection and sterilization in viral hepatitis A and B.
13. Implementation of anti-epidemic measures in foci of respiratory infections, intestinal and blood infections.

8. Distribution of points received by students

The grade for the discipline is determined taking into account the grades for the student's current educational activity and the grade for the student's individual independent work (ISRS).

Current control is carried out at each practical session in accordance with the specific goals of each topic. Standardized control methods are preferred when evaluating the current educational activity of students: testing, situational tasks, structured written works and structured control (according to the procedure) of practical skills in conditions close to real ones.

Evaluation of independent work students in preparation for classroom practical classes is carried out during the current control of the topic in the corresponding classroom class.

Table 1.

Table 1. Recalculation of the average grade for the current activity into a multi-point scale (for disciplines ending with a differential credit)

4-point scale	120-point scale	4-point scale	120-point scale	4-point scale	120-point scale	4-point scale	120-point scale
5	120	4.45	107	3.91	94	3.37	81
4.95	119	4.41	106	3.87	93	3.33	80
4.91	118	4.37	105	3.83	92	3.29	79
4.87	117	4.33	104	3.79	91	3.25	78
4.83	116	4.29	103	3.74	90	3.2	77
4.79	115	4.25	102	3.7	89	3.16	76
4.75	114	4.2	101	3.66	88	3.12	75
4.7	113	4.16	100	3.62	87	3.08	74
4.66	112	4.12	99	3.58	86	3.04	73
4.62	111	4.08	98	3.54	85	3	72
4.58	110	4.04	97	3.49	84	Less than 3	Not enough
4.54	109	3.99	96	3.45	83		
4.5	108	3.95	95	3.41	82		

The maximum number of points that a student can score for the current educational activity for admission to the diff. credit is 120 points.

The minimum number of points that a student must score for the current educational activity for admission to the diff. the credit is 72 points. The calculation of the number of points is carried out on the basis of the grades received by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places.

Assessment of individual student tasks . Points for individual tasks are awarded only under conditions of their successful completion and defense. The number of points awarded for different types of individual tasks depends on their volume and importance, but no more than 10-12 points. They are added to the sum of points scored by the student in classes during the current educational activity. In no case can the total amount for the current activity exceed 120 points.

Assessment of students' independent work . Students' independent work, which is provided for by the topic of the lesson along with classroom work, is evaluated during the current control of the topic in the corresponding lesson. The mastery of topics that are presented only for independent work is checked during the final control.

The maximum number of points that a student can score while taking the diff. credit is **80 points.**

The evaluation of the final control is considered passed if the student scored at least 60% of the maximum number of points (for a 200-point scale – at least **50 points**).

Determining the number of points a student has scored in a discipline: the number of points a student has scored in a discipline is determined as the sum of points for the current educational activity and for the final control (dif. credit).

Conversion of the number of points from the discipline into grades on the ECTS scale and on the four-point (traditional) scale

Subject scores are independently converted to both the ECTS scale and the national grading scale, but not vice versa. **Table 2.**

Criteria for setting the assessment according to the traditional 4-point and ECTS scale for taking the exam :

Score in points	Rating by national scale	Rating according to the ECTS scale
180-200	Perfectly	A
160 -179	Fine	B
150-159		C
130 -149	Satisfactorily	D
120 -129		E
50 - 119	Unsatisfactorily	FX
0-49		F

Evaluation criteria.

During the evaluation of the mastery of each topic for the current educational activity, the higher education applicant is given grades according to the national (traditional) scale, taking into account the approved evaluation criteria:

- *grade "excellent" (5)* - the student flawlessly mastered the theoretical material of the topic of the lesson, demonstrates deep and comprehensive knowledge of the relevant topic, the main provisions of scientific primary sources and recommended literature, thinks logically and constructs an answer, freely uses the acquired theoretical knowledge when analyzing practical material, expresses his attitude to certain problems, demonstrates a high level of assimilation of practical skills;
- *grade "good" (4)* - the student has mastered the theoretical material of the lesson well, has the main aspects from primary sources and recommended literature, presents it with arguments; possesses practical skills, expresses his thoughts on certain problems, but certain inaccuracies and errors are assumed in the logic of the presentation of theoretical content or in the performance of practical skills;
- *rating "satisfactory" (3)* - the student has basically mastered the theoretical knowledge of the subject, orients himself in primary sources and recommended literature, but answers unconvincingly, confuses concepts, additional questions cause the student uncertainty or lack of stable knowledge; when answering questions of a practical nature, reveals inaccuracies in knowledge, does not know how to evaluate facts and phenomena, connect them with future activities, makes mistakes when performing practical skills;
- *rating "unsatisfactory" (2)* - the student has not mastered the educational material of the topic, does not know scientific facts, definitions, hardly orients himself in primary sources and recommended literature, lacks scientific thinking, practical skills are not formed. Estimates given on a traditional scale are converted into points.

The minimum number of points that a student must score for the current academic activity per semester for admission to the exam is 120 points.

9. Recommended literature

Basic

1. Epidemiology / Ed. Prof. I.P. Kolesnikova – Vinnytsia: New Book, 2018.
2. Shlyakhov E.N. Practical epidemiology. Chisinau: Shtyintsa, 2018.
3. Epidemiology / Edited by Y.D. Gots, I.P. Kolesnikova, G.A. Mohort. - Kyiv: "Askania", 2018.
4. Practical manual "Immunoprophylaxis of infectious diseases and its organization". Kolesnikova I.P., Marchenko M.M., Mohort G.A. etc. 2018
5. Guide "Epidemiological research method. Epidemiological diagnostics", Dept. of epidemiology of NMU, 2013
6. Manual "Epidemiology of emergencies and military epidemiology", department of epidemiology of NMU, 2014
7. Kiryazova T.H., Fedorov S.V., Kotovych A.O. Interactive technologies in the prevention of HIV infection. Formation of a tolerant attitude towards HIV-positive children. – Odesa: 2006. – 163 p.

Auxiliary

1. Zarytskyi A.M. Disinfectology: in 3 parts. - Zhytomyr: PP "Ruta", 2001. - 384 p.
2. Prudkina N.S. Blood-sucking dipterous insects: fauna, biology, ecology, medical and veterinary significance. - Kharkiv, 2011. - 296 p.
3. Cherkassky B.L. Guide to general epidemiology. - M.: "Medicine", 2001.
4. Dykiy B.M., Nikiforova T.O. Epidemiology. - Ivano-Frankivsk, 2006.
5. Health 21: Foundations of health promotion policy for all in the WHO European Region: 2005 update // EUR/RC55/Conf.Doc./4. - Bucharest, 2005. - 198 p.
6. Law of Ukraine dated February 24, 1994 No. 4004-XII "On ensuring the sanitary and epidemic welfare of the population" with changes and additions.
7. Law of Ukraine dated April 6, 2000 No. 1645-III "On the Protection of the Population from Infectious Diseases" as amended.
8. Law of Ukraine dated September 6, 2005 No. 2809-IV "On the safety and quality of food products".
9. The Law of Ukraine dated January 14, 2000 "On Withdrawal from Circulation, Processing, Disposal, Destruction or Further Use of Low-Quality Products" as amended.

10. Information resources

1. Textbooks and instructional manuals.
2. Educational and methodical materials of the department.
3. Visual materials for practical classes (tables, diagrams, algorithms, stands, albums, etc.).
4. Educational portal of the VMNH.
5. Official website of the Ministry of Health of Ukraine //www.moz.gov.

11. Form of final control of study success

The final current control is carried out at each practical session in accordance with the specific objectives of the topic. It is recommended to use the types of objective control of theoretical training (in the form of a written, oral survey, testing) and control of the acquisition of practical skills in all practical classes. When mastering each topic of the module for the current educational activity, the student is given a grade on a 4-point scale and a multi-point scale according to the requirements of the Bologna system.

Final modular control (PMK) . The form of conducting the final module control includes the control of theoretical and practical training. The discipline is considered **to be passed** when the student has completed all types of work provided for by the curriculum and when studying modules 1 and 2 and scored a number of points not less than the minimum - 110 points for each module.

12. Means of diagnosing the success of training

1. List of theoretical questions to determine the level of assimilation of the program material.
2. Sets of materials for solving practical problems and situational problems.
3. Control test tasks (for current and final control).
4. A set of situational tasks for the final modular control.

Approved:

В.о.Ректора /Acting Rector **Dmytro GOVSIEIEV**