DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department of Infectious Diseases

"APPROVED"
First Vice-Rector on
Scientific and Pedagogical work
Associate Professor Iryna SOLONYNKO

"_____" 2023

DISCIPLINE PROGRAM
OK 21.1 INFECTIOUS DISEASES

(name of the academic discipline)

Second (master's) level of higher education
Field of Knowledge 22 "Healthcare"
specialty _222 "Medicine"____

Discussed and approved
at the educational-methodical meeting of the
Infectious Diseases Department
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Head of the Department
Professor Oleksandr ZINCHUK

Approved by the Profile Metodical Board
on Therapeutic Disciplines
Minutes № 3 from 4.05.2023
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therapeutic disciplines
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DEVELOPED AND SUBMITTED BY: Danylo Halytsky Lviv National Medical University
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INTRODUCTION

The program of studying the discipline "Infectious diseases" compiled in according to the Standard of higher education of Ukraine of the second (Master) level
field of *knowledge 22 "Healthcare"*
specialty 222 "Medicine"

Educational Program Master of *Medicine*

Description of the academic discipline (annotation) Academic discipline "Infectious diseases" provides an opportunity for students of the medical faculty in the 5**th year of study** to get knowledge, ability and practical skills, which provide an opportunity for a specialist to quickly and correctly orient themselves in situations where patients have infectious pathology and other urgent conditions, avoid fatal mistakes or time loss, and take priority steps that will save a human life and/or become a good basis for successful further treatment in the hospital. Learning of discipline is based on knowledge that has achieved by students in the learning process of biology, physiology, microbiology, epidemiology and other basic subjects.

In the learning process of the discipline "Infectious diseases" rationale to apply in the educational process modern world developments and standards on the main questions of infectious diseases.

Structure of the discipline	**Number of credits, hours, of which**				**Year of study semester**	**Type of control**
	Total	**Classroom**		**IWS**		
		Lectures (hours)	Practical classes (hours)			
Name of the discipline: "Infectious diseases"	**4 credits / 120 hours**	**12**	48	**60**	**5 course (9/10 Semesters)**	**Exam**

The subject of the discipline is the main manifestations of infectious diseases, the principles of correct interpretation of clinical information obtained during the examination of the patient and the basic principles of treatment of patients with infectious pathology.

Interdisciplinary connections: biology, microbiology, epidemiology, immunology.

1. The purpose and objectives of the discipline

1.1. The purpose of teaching the discipline "Infectious diseases" is the assimilation of theoretical and practical knowledge of etiology, epidemiology, pathogenesis, typical clinical manifestations, methods of diagnosis, treatment of infectious pathology within the limits corresponding to the program of training a dentist, taking into account the peculiarities of his specialty.

1.2. The main tasks of studying the discipline "Infectious diseases" is the mastery of knowledge, skills and abilities to ensure the adaptation of students to patients of infectious profile; ability to make a diagnosis, choose appropriate medical and diagnostic manipulations, provide emergency care to patients with infectious pathology.

1.3 Competences and learning outcomes, the formation of which is facilitated by discipline (relationship with the normative content of training of higher education applicants, formulated in terms of the results of training in the Standard).

In accordance with the requirements of the standard, discipline ensures that students acquire ***competencies:***

-integrated: the ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy;

-general:

GC. 1. Ability to abstract thinking, analysis and synthesis.

GC. 2. Ability to learn and master modern knowledge.
GC. 3. Ability to apply knowledge in practical situations.
GC. 4. Knowledge and understanding of the subject area and understanding of professional activity
GC. 5. Ability to adapt and act in a new situation.
GC. 6. Ability to make informed decisions.
GC. 7. Ability to work in a team.
GC. 8. Ability to interpersonal interaction.
GC. 10. Ability to use information and communication technologies.
GC. 11. Ability to search, process and analyze information from various sources
GC. 12. Determination and persistence in relation to assigned tasks and assumed responsibilities.
GC. 14. Ability to be aware of own rights and responsibilities as a member of society, to be aware of the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human rights and freedoms.
GC. 15. Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.

-special (professional, substantive):
SC. 1. Ability to collect medical information about the patient and analyze clinical data.
SC. 2. Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.
SC. 3. Ability to establish a preliminary and clinical diagnosis of the disease.
SC. 4. Ability to determine the necessary regime of work and rest in the treatment of diseases.
SC. 5. Ability to determine the nature of nutrition in the treatment and prevention of diseases.
SC. 6. Ability to determine the principles and nature of treatment and prevention of diseases.
SC. 7. Ability to diagnose emergency conditions.
SC. 8. Ability to determine tactics and provide emergency medical care.
SC. 9. Ability to carry out medical evacuation measures.
SC. 10. Ability to perform medical manipulations.
SC. 11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.
SC. 13. Ability to carry out sanitary and hygienic and preventive measures.
SC. 14. Ability to plan and carry out preventive and anti-epidemic measures for infectious diseases.
SC. 16. Ability to maintain medical documentation, including electronic forms.
SC. 21. Clearly and unambiguously communicate one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.
SC. 24. Adherence to ethical principles when working with patients and laboratory animals.
SC. 25. Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results.

Detailed competences in accordance with the NRC descriptors in the form of the Competence Matrix.

Competency matrix

№	Competence	Knowledge	Skill	Communication	Autonomy and responsibility
Integral competence		Ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.			
General competencies					
GC.1.	Ability to abstract thinking, analysis and synthesis.	Know methods of analysis, synthesis and further modern education	Be able to analyze information, make informed decisions, be able to acquire modern knowledge	Establish appropriate connections to achieve goals.	To be responsible for the timely acquisition of modern knowledge.
GC.2.	Ability to learn and master modern knowledge.	Know the current trends in the development of the industry and analyze them	Be able to analyze professional information, make informed decisions, acquire up-to-date knowledge	Establish appropriate connections to achieve goals	To be responsible for the timely acquisition of modern knowledge
GC.3.	Ability to apply knowledge in practical situations	Have specialized conceptual knowledge acquired in the learning process.	To be able to solve complex tasks and problems that arise in professional activity.	Clear and unambiguous presentation of one's own conclusions, knowledge and explanations that justify them to specialists and non-specialists.	Be responsible for making decisions in difficult conditions
GC.4.	Knowledge and understanding of the subject area and understanding of professional activity	Have in-depth knowledge of the structure of professional activity.	To be able to carry out professional activities that require updating and integration of knowledge.	The ability to effectively form a communication strategy in professional activities	To be responsible for professional development, the ability for further professional training with a high level of autonomy.
GC.5.	Ability to adapt and act in a new situation	Know the types and methods of adaptation, the principles of action in a new situation	To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity.	Establish appropriate connections to achieve results.	Be responsible for the timely use of self-regulation methods.

GC.6.	Ability to make informed decisions	Know communication tactics and strategies, laws and methods	Be able to make a reasoned decision, to choose	To use communication strategies and interpersonal skills	Be responsible for the choice and tactics of the method
GC.7.	Ability to work in a team	To know communication tactics and strategies, laws and methods of communicative behavior.	Be able to choose communication methods and strategies to ensure effective teamwork	To use communication strategies	To be responsible for the choice and tactics of the method of communication
GC.8.	Ability to interpersonal interaction	Know the laws and methods of interpersonal interaction	Be able to choose communication methods and strategies for interpersonal interaction	To use interpersonal skills	To be responsible for the choice and tactics of the method of communication
GC.10.	Ability to use information and communication technologies	Have deep knowledge in the field of information and communication technologies used in professional activities	To be able to use information and communication technologies in a professional field that requires updating and integration of knowledge	Use information and communication technologies in professional activities	To be responsible for the development of professional knowledge and skills.
GC.11.	Ability to search, process and analyze information from various sources	Know the system of official document flow in the professional work of a doctor, including modern computer information technologies.	Be able to determine the source and location of the required information depending on its type. Be able to process information and analyze the received information	Obtain the necessary information from a specified source and, based on its analysis, form appropriate conclusions	Be responsible for the completeness and quality of information analysis and conclusions based on its analysis.
GC.12.	Determination and persistence in relation to assigned tasks and assumed responsibilities	Know the responsibilities and ways of performing assigned tasks	To be able to determine the goal and task, to be persistent and conscientious in the performance of duties	Establish interpersonal relationships for effective performance of tasks and responsibilities	To be responsible for the high-quality performance of assigned tasks

GC.14.	The ability to realize one's own rights and responsibilities as a member of society, to be aware of the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine	Know your rights and responsibilities as a member of society	To be able to realize one's rights and responsibilities as a member of society	Realize your rights and responsibilities as a member of society	To be responsible for the quality performance of one's duties as a member of society
GC.15.	The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle (motives)	To know the moral, cultural, scientific values and achievements of society, its place in the general system of knowledge about nature and society and in the development of society, technology and technology	To be able to preserve and multiply moral, cultural, scientific values and achievements of society	To preserve and multiply moral, cultural, scientific values and achievements of society	To be responsible for the preservation and multiplication of moral, cultural, scientific values and achievements of society
Special (professional) competencies					

SC.1.	Ability to collect medical information about the patient and analyze clinical data of shock	To have specialized knowledge about a person, a child, his organs and systems, to know the methods and standard schemes of the patient's survey and physical examination. Know the methods of assessing the state of intrauterine development of the fetus. Know the stages and methods of examination of the child's psychomotor and physical development.	Be able to conduct a conversation with a patient (including a child), on the basis of algorithms and standards, using standard methods to conduct a physical examination of the patient. Be able to examine the child's psychomotor and physical development. Be able to assess the state of health of a person (including a child).	Effectively form a communication strategy when communicating with the patient. Enter information about the child's state of health in the relevant medical documentation	To be responsible for the quality collection of information obtained on the basis of an interview, examination survey, palpation, percussion of organs and systems and for timely assessment of the state of: human health, psychomotor and physical development of the child and intrauterine development of the fetus and for taking appropriate measures
SC.2.	Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results	Have specialized knowledge about a person, his organs and systems, know the principles of laboratory and instrumental research and evaluation of their results	Be able to analyze the results of laboratory and instrumental studies and, based on them, evaluate information about the patient's diagnosis	Reasonably prescribe and evaluate the results of laboratory and instrumental research	Be responsible for the correct and timely evaluation of information regarding the results of laboratory and instrumental research in the conditions of a health care institution

SC.3.	Ability to establish a preliminary and clinical diagnosis of the disease	To have specialized knowledge about a person, a child, his organs and systems, to know the diagnosis algorithm in the conditions of a health care institution	Be able to: identify and record the leading clinical symptom or syndrome; establish the most likely syndromic diagnosis of the disease, prescribe laboratory and/or instrumental examination of the patient, carry out differential diagnosis of diseases	On the basis of regulatory documents, maintain the patient's medical documentation (ambulatory/inpatient card, etc.).	Adhering to ethical and legal norms, bear responsibility for making informed decisions and actions regarding the correctness of the established preliminary and clinical diagnosis of the disease.
SC.4.	The ability to determine the necessary regime of work and rest in the treatment of diseases.	Have specialized knowledge about a person, his organs and systems; ethical and legal norms; algorithms and standard schemes for determining the mode of work and rest during treatment, based on the preliminary and clinical diagnosis of the disease (according to list 2)	Be able to determine, on the basis of preliminary and clinical diagnosis, by making a reasoned decision, the necessary regime of work and rest during the treatment of the disease (according to list 2).	Form and convey to the patient and specialists the conclusions regarding the necessary regime of work and rest during the treatment of the disease (according to list 2).	Be responsible for the reasonableness of prescribing the work and rest regime during the treatment of the disease (according to list 2).
SC.5.	The ability to determine the nature of nutrition in the treatment and prevention of diseases	Have specialized knowledge about a person, his organs and systems; algorithms and standard schemes for prescribing nutrition in the treatment of diseases (according to list 2).	Be able to determine, on the basis of a preliminary and clinical diagnosis, the nature of nutrition in the treatment of diseases (according to list 2).	Form and convey to the patient and specialists conclusions about nutrition during the treatment of the disease (according to list 2).	Be responsible for the reasonableness of the definition of nutrition in the treatment of the disease (according to list 2).

SC.6.	Ability to determine the principles and nature of treatment and prevention of diseases	Have specialized knowledge of algorithms and standard disease treatment schemes (according to list 2)	Be able to determine the principles and nature of treatment of the disease (according to list 2).	Form and convey to the patient and specialists own conclusions regarding the principles and nature of treatment (according to list 2).	Be responsible for making a decision regarding the principles and nature of the treatment of the disease (according to list 2).
SC.7.	Ability to diagnose emergency conditions	Have specialized knowledge about a person, his organs and systems, standard methods of examining a person (at home, on the street, in a health care facility) in conditions of lack of information.	Be able to, in conditions of lack of information, use standard methods, by making a reasoned decision to assess the patient's condition and determine the main clinical syndrome (or what determines the severity of the condition of the victim/injured) (according to list 3)	Under any circumstances, in compliance with the relevant ethical and legal norms, make a reasoned decision regarding the assessment of the severity of the person's condition, the diagnosis and the organization of the necessary medical measures depending on the person's condition; fill out the relevant medical documents	Be responsible for the timeliness and effectiveness of medical measures to diagnose emergency conditions
SC.8.	Ability to determine tactics and provide emergency medical care	Know the legislative framework for the provision of emergency medical care, in particular the Law of Ukraine "On Emergency Medical Care". Have specialized knowledge about emergency human conditions; principles of providing emergency medical care	Be able to identify emergency situations (according to list 3); principles and tactics of providing emergency medical care; to carry out organizational and diagnostic measures aimed at saving and preserving human life.	Reasonably formulate and prove to the patient or his legal representative the need for emergency care and obtain consent for medical intervention	To be responsible for the correct definition of an emergency condition, its degree of severity and the tactics of providing emergency medical aid.

SC.9.	Ability to carry out medical evacuation measures	Know the existing system of medical and evacuation support	To organize medical evacuation activities among the population and military personnel in emergency situations, including in field conditions, during the deployed stages of medical evacuation, taking into account the existing system of medical and evacuation support	It is justified to resolve the issue of isolation of patients suspected of having an infectious disease, taking into account the danger of sources of pathogens of infectious diseases	To be responsible for making a decision regarding the isolation of sources of pathogens of infectious diseases
SC.10.	Ability to perform medical manipulations	Have specialized knowledge about a person, his organs and systems, anatomo-physiological and age-related features; knowledge of algorithms for performing medical manipulations (according to list 5)	Be able to perform medical manipulations (according to list 5).	Reasonably form and prove to the patient, and/or his parents (guardians), specialists conclusions regarding the need for medical manipulations (according to list 5)	To be responsible for the quality of medical manipulations (according to list 5)

SC.11.	Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.	Have specialized knowledge of medical problems	Be able to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility	Reasonably solve medical problems in new or unfamiliar environments	Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility
SC.13.	Ability to carry out sanitary and hygienic and preventive measures	Know the principles and systems of planning and carrying out preventive and anti-epidemic measures in typical conditions and in conditions of epidemic adversity	To be able to organize preventive and anti-epidemic measures	Inform the population, heads of relevant institutions and enterprises about the timely implementation of preventive and anti-epidemic measures	To be responsible for qualitative analysis of population morbidity indicators, timely implementation of relevant preventive and anti-epidemic measures

SC.14.	Ability to plan and carry out preventive and anti-epidemic measures for infectious diseases	Know the principles and systems of planning and carrying out preventive and anti-epidemic measures for infectious diseases in typical conditions and in conditions of epidemic adversity based on the results of analysis, data from the examination of the center of infectious diseases. Know the methods of detection and early diagnosis of infectious diseases, the organization of primary anti-epidemic measures in the center of infectious diseases. Know preventive and anti-epidemic methods of organizing measures to prevent the spread of infectious diseases.	To be able, based on epidemiological analysis, to use preventive and anti-epidemic methods, to plan measures to prevent the spread of infectious diseases (according to list 2) To be able to organize the implementation of preventive and anti-epidemic measures for infectious diseases in a health care institution, among the fixed population and in centers of infectious diseases based on epidemiological analysis by risk groups, risk area, time and risk factors	Inform the population, heads of relevant institutions and enterprises about the timely implementation of preventive and anti-epidemic measures, vaccinations, etc.	To be responsible for the qualitative analysis of indicators of infectious morbidity of the population, the timely implementation of appropriate preventive and anti-epidemic measures

SC.16.	Ability to maintain medical documentation, including electronic forms	Know the system of official document flow in the professional work of a doctor, including modern computer information technologies.	Be able to determine the source and location of the required information depending on its type. Be able to process information and analyze the received information	Obtain the necessary information from a specified source and, based on its analysis, form appropriate conclusions.	Be responsible for the completeness and quality of information analysis and conclusions based on its analysis.
SC.21.	Clearly and unambiguously communicate one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying	Have specialized knowledge of health care issues	Be able to apply the acquired knowledge of medical problems	Ability to communicate one's professional position to patients, their family members, and colleagues	Be responsible for the provided information on health care issues
SC.24.	Adherence to ethical principles when working with patients and laboratory animals	Know the basics of ethics and deontology	Be able to apply ethical and deontological norms and principles in professional activity	The ability to communicate one's professional position to patients, their family members, and colleagues	To be responsible for the implementation of ethical and deontological norms and principles in professional activity
SC.25.	Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results	Know the basics of professional and academic integrity	To be able to observe professional and academic integrity	Ability to adhere to the principles of professional and academic integrity	Be responsible for the reliability of the obtained scientific results

Learning outcomes:

Integrative final program learning outcomes, the formation of which is due to the educational discipline:

1. Identify different clinical variants and complications of the most common infectious diseases;
2. Plan the examination of the patient and interpret the obtained results for the most common infectious diseases;
3. Carry out differential diagnosis and make a preliminary clinical diagnosis of the most common infectious diseases;
4. Determine the tactics of patient management in the most common infectious diseases;
5. Demonstrate the ability to maintain medical documentation in the clinic of infectious diseases;

6. Diagnose and provide emergency care for major emergencies in the clinic of infectious diseases (shock, coma, allergic reactions, asphyxia, cerebral edema, convulsive syndrome).

Learning outcomes for the discipline:

PLO.1. Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy. (GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC10, GC11, GC12, GC14, GC15, SC1, SC2, SC3, SC4, SC5, SC6, SC7, SC8, SC9, SC10, CS11, SC13, SC14, SC16, SC21, SC24, SC25)

PLO.2. Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care. (GC4, GC6, GC10, GC11, GC12, SC1, SC2, SC3, SC4, SC5, SC6, SC7, SC8, SC9, SC10, CS11, SC13, SC14, SC16, SC24)

PLO.3. Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems. (GC1, GC2, GC3, GC6, GC7, GC10, GC11, GC12, SC1, SC2, SC3, CS11, SC21, SC24, SC25)

PLO.4. Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2). (GC3, GC4, SC16, SC24)

PLO.5. Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient. (GC1, GC2, GC3, GC6, GC7, SC1, SC2, SC3, SC7, SC8, SC16, SC24)

PLO.6. Establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, differential diagnosis, observing the relevant ethical and legal norms, under the control of the head physician in the conditions of the health care institution (according to the list 2). (GC1, GC2, GC3, GC6, GC7, GC8, SC1, SC2, SC3, SC7, SC8, SC11, SC16, SC24)

PLO.7. Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) of patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2). (GC8, SC1, SC2, SC16, SC24)

PLO.8. Determine the main clinical syndrome or what causes the severity of the victim/victim's condition (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time. (GC3, GC4, SC5, SC6, SC7, SC8, SC9, SC10, CS11, SC24)

PLO.9. Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to justify personalized recommendations under the control of the head physician in the conditions of a medical institution. (SC1, SC2, SC6, SC7, SC8, SC11)

PLO.10. Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes. (GC4, SC4, SC5, SC24)

PLO.14. Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time in accordance with existing clinical protocols and treatment standards. (GC5, GC7, GC8, SC1, SC7, SC11, SC16)

PLO.16. Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment. (SC3, SC7, SC10, SC11)
PLO.17. Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms. (GC14, GC15, SC7, SC10, SC11)
PLO.19. Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population. (SC14)
PLO.20. Analyze the epidemiological situation and carry out measures for mass and individual, general and local prevention of infectious diseases. (GC10, GC11)
PLO.21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information. (GC2, GC10, GC11)
PLO.25. It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists. (GC5, GC6, SC11)
PLO.27. Communicate freely in the national and English languages, both orally and in writing to discuss professional activities, research and projects. (GC5, GC6, GC7, GC8, GC15, SC11, SC21)
PLO.29. Plan, organize and carry out measures for the specific prevention of infectious diseases, including in accordance with the National calendar of preventive vaccinations, both mandatory and recommended. Manage vaccine residues, organize additional vaccination campaigns, including immunoprophylaxis measures. (GC14, GC15, SC14, SC15).

2. Information volume of academic discipline

120 hours of 4 ECTS credits are for studying the discipline.

«Infectious diseases» as an academic discipline:

a) is based on students' study of medical and biological physics, morphological disciplines, microbiology, virology and immunology, physiology, pathophysiology, internal diseases, surgery, neurology, dermatology, epidemiology, ophthalmology, otolaryngology, endocrinology, clinical pharmacology, reanimatology and integrates with these disciplines;

b) lays the foundations for students studying family medicine, which involves the integration of teaching with this discipline and the formation of the ability to apply knowledge of infectious diseases in the process of further education and in professional activities;

c) lays the foundations for a healthy lifestyle and prevention of impaired body functions in the process of vital activity.

In the general system of training a doctor, the discipline "Infectious diseases" occupies an important place, taking into account the significant prevalence of infectious pathology, the need for the formation of clinical thinking, skills and practical skills in future doctors, which ensure timely diagnosis of infectious diseases and their complications, rational treatment, the choice of optimal tactics in in the case of emergency care. Special attention in the teaching of the discipline is paid to issues of early diagnosis, treatment of patients at the pre-hospital stage, which contributes to the improvement of the quality of training of doctors, primarily for the outpatient department of health care.

Types of training according to the curriculum are practical classes, independent work of students (IWS).

Practical classes according to the method of their organization are clinical and include:

1. Curation of patients with infectious diseases, which is carried out according to a given algorithm of actions of students.
2. Consideration of theoretical issues and acquisition of practical Skills according to standard lists for each practical lesson.
3. Analysis of archival histories of diseases.
4. Solving situational problems.
5. Standardized test control, oral and written survey.

Independent work of students (IWS) takes a significant place in the study of discipline. In addition to the traditional preparation of students for practical classes, as well as mastering the list of topics submitted for independent study, it includes the work of students in the clinic in extra-scientific time with the mastery of practical skills, their drawing up schemes of differential diagnostics and algorithms for examining patients. The effectiveness of the IWS should be ensured by the cooperation of students and teachers.

The assimilation of the topic is controlled in practical classes according to specific goals. The exam is carried out after the study of all topics is completed.

It is recommended to use the following means of diagnosing the level of students' training: computer and form testing, solving situational problems, interpreting laboratory studies, analyzing and evaluating the results of specific and instrumental examination methods, monitoring practical skills, answering standardized theoretical questions

3. Structure of academic discipline

Infectious diseases

№	Theme	Lectures	Practical class	IWS
1	Introduction to the course of inectology. Immunoprophylaxis of infectious diseases. General characteristics of the group of infectious diseases with fecal-oral transmission mechanism. Typhoid fever. Parathyphs A and B.	**4**	**4**	**15**
2	Diarrheal syndrome in the clinic of infectious diseases. Cholera. Salmonellosis. Food toxic infections. Food poisoning of microbial origin. Botulism. Emergency conditions in patients with infectious diseases with fecal-oral transmission mechanism.	**2**	**4**	
3	Intestinal infectious diseases with predominant damage to the large intestine. Shigellosis. Protozoan intestinal invasions. Amoebiasis. Nematodes. Cestodosiasis. Trematodoses		**4**	
4	General characteristics of the group of infectious diseases with an airborne mechanism of transmission. Influenza. Other SARS: parainfluenza, adenovirus disease, RS-infection, rhinovirus disease. Infectious diseases that overlap with the clinic of atypical pneumonia: respiratory mycoplasmosis, ornithosis, legionellosis. COVID-19	**2**	**4**	**15**
5	Peculiarities of pediatric infectious diseases in adults (measles, rubella, mumps). Clinical characteristics of tonsillitis. Diphtheria. Infectious mononucleosis. Emergency conditions in patients with infectious diseases with an airborne mechanism of transmission.		**4**	
6	Meningococcal disease. Meningeal s-m in the clinic of infectious diseases. Differential. diagnosis of serous and purulent meningitis. Emergency conditions: edema-swelling of the brain, infectious-toxic shock, thrombo-hemorrhagic syndrome.		**4**	
7	General characteristics of viral hepatitis. Viral hepatitis with fecal-oral transmission mechanism. Acute viral hepatitis with a parenteral mechanism of transmission.	**2**	**4**	**10**

	Laboratory diagnosis of viral hepatitis. Therapeutic tactics of acute viral hepatitis. Chronic viral hepatitis B, C, D.			
8	HIV infection. AIDS-associated infections and infestations.	**2**	**4**	
9	General characteristics of infectious diseases with a transmissible transmission mechanism. Malaria. Leishmaniasis. Transmissible diseases transmitted through tick bites: tick-borne encephalitis, Lyme disease. Rickettsioses. Syndrome of prolonged fever of unknown origin. Brucellosis. Sepsis**.**		**4**	**10**
10	Infectious diseases affecting the nervous system: rabies, tetanus. Infectious diseases with skin damage: erysipelas, erysipeloid, felinosis-cat-scratch disease		**4**	**10**
11	TORCH-infections: toxoplasmosis; rubella; cytomegalovirus disease; herpes simplex. Complications of the use of drugs in the practice of an infectious disease specialist. Antibiotic-associated diarrhea, Cl. difficile infection. Nosocomial infections		**4**	
12	Infectious diseases with predominant damage to the kidneys: leptospirosis, Hemorrhagic Fever with Renal Syndrome. Congo-Crimean hemorrhagic fever. Infectious diseases regulated by the International Health Regulations of 2005. The concept of biosafety.		**4**	
Total		**12**	**48**	**60**

4. Thematic lecture plan

№	Theme	Hours
1.	Introduction to infectology. Definition of the infectious process and infectious diseases. Principles of diagnosis, treatment, prevention of infection diseases.	**2**
2.	General characteristics of the group of infectious diseases with the airborne route of transmission. Influenza. SARS-COVID-19.	**2**
3.	Diarrhea syndrome in the clinic of infectious diseases. Pathogenesis and clinical features. Principles of treatment and prevention.	**2**
4.	Meningeal syndrome in the clinical picture of infectious diseases. Differential diagnosis Serous and Purulent Meningitis. Meningococcal infection.	**2**
5.	Viral hepatitis.	**2**
6.	AIDS-associated infections and invasions.	**2**
	Total	**12**

5. Thematic plan of practical classes in the discipline "Infectious diseases".

№	Theme	Hours
1.	Introduction to the course of inectology. Immunoprophylaxis of infectious diseases. General characteristics of the group of infectious diseases with fecal-oral transmission mechanism. Typhoid fever. Parathyphs A and B.	4
2.	Diarrheal syndrome in the clinic of infectious diseases. Cholera. Salmonellosis. Food toxic infections. Food poisoning of microbial origin.	4

	Botulism. Emergency conditions in patients with infectious diseases with fecal-oral transmission mechanism.	
3.	Intestinal infectious diseases with predominant damage to the large intestine. Shigellosis. Protozoan intestinal invasions. Amoebiasis. Nematodes. Cestodosiasis. Trematodoses	4
4.	General characteristics of the group of infectious diseases with an airborne mechanism of transmission. Influenza. Other SARS: parainfluenza, adenovirus disease, RS-infection, rhinovirus disease. Infectious diseases that overlap with the clinic of atypical pneumonia: respiratory mycoplasmosis, ornithosis, legionellosis. COVID-19	4
5.	Peculiarities of pediatric infectious diseases in adults (measles, rubella, mumps). Clinical characteristics of tonsillitis. Diphtheria. Infectious mononucleosis. Emergency conditions in patients with infectious diseases with an airborne mechanism of transmission.	4
6.	Meningococcal disease. Meningeal s-m in the clinic of infectious diseases. Differential. diagnosis of serous and purulent meningitis. Emergency conditions: edema-swelling of the brain, infectious-toxic shock, thrombo-hemorrhagic syndrome.	4
7.	General characteristics of viral hepatitis. Viral hepatitis with fecal-oral transmission mechanism. Acute viral hepatitis with parenteral transmission mechanism. Laboratory diagnosis of viral hepatitis. Therapeutic tactics of acute viral hepatitis. Chronic viral hepatitis B, C, D.	4
8.	HIV infection. AIDS-associated infections and invasions.	4
9.	General characteristics of infectious diseases with a transmissible transmission mechanism. Malaria. Leishmaniasis. Transmissible diseases transmitted through tick bites: tick-borne encephalitis, Lyme disease. Rickettsioses. Syndrome of prolonged fever of unknown origin. Brucellosis. Sepsis**.**	4
10.	Infectious diseases affecting the nervous system: rabies, tetanus. Infectious diseases with skin damage: erysipelas, erysipeloid, felinosis-cat-scratch disease**.**	4
11.	TORCH-infections: toxoplasmosis; rubella; cytomegalovirus disease; herpes simplex. Complications of the use of drugs in the practice of an infectious disease specialist. Antibiotic-associated diarrhea, Cl. difficile infection. Nosocomial infections.	4
12.	Infectious diseases with predominant damage to the kidneys: leptospirosis, Hemorrhagic Fever with Renal Syndrome. Congo-Crimean hemorrhagic fever. Infectious diseases regulated by the International Health Regulations of 2005. The concept of biosafety.	4
	Exam	
	Total	**48**

6. Thematic plan of independent work of students (IWS).

№	Theme	Hours	Type of control
1.	**Preparation for practical classes,** theoretical training and processing of practical skills**.**	30	Current control during practical lessons

2.	**Self-study of topics that are not included in the plan of classroom classes:** Paratufiers A and V. Listerios. Reovirus disease Norfolk viral infection. Helminths. Rhinovirus. Corona viral, Boca viral Metapneumovirus infection. Diseases caused by herpes viruses of 6-8 types. Other viral hepatitis (TTV, SEN, G). Lambliosis. Natural smallpox. mycoplasmosis, ornithosis, legionellosis. Differential diagnosis of soreness. Long-term fever syndrome of unknown genesis. Brucelosis. Sepsis. Hemorrhagic fevers. Eeripeloid, felinosis, soda, streptobacillosis. Complications of the use of drugs in the practice of infectious disease. International Medical and Sanitary Rules. Bioterrorism.	24	Current control during practical lessons
3.	**Preparation for the exam**	6	-«-
	Total	**60**	

7. Individual tasks

Individual tasks in the study of the discipline involve the implementation of individual tasks in the form of preparation of reviews of scientific literature and abstracts with in-depth study of relevant topics of choice, creating visual aids, presentations at conferences, and individual research in student groups, participation in national competitions. Create slides according to the thematic plan.

8. Teaching methods

Visual: In the study of the discipline "Infectious diseases" a set of methods is used: - methods of verbal transmission and auditory perception of educational information (lectures, conversations, stories, explanations, discussions), methods of visual transmission and visual perception of educational information (demonstration and demonstration of slides, videos, study of literary and other sources of educational information, the use of visual means of learning), methods of transmitting educational information through practical, labor actions and tactile perception of it (training tasks and creative exercises), review of thematic patients).

Practical methods: Curation of patients, examination of patients with infectious pathology, solving clinical situational problems and tests, mastering elements of medical equipment for examination of patients.

9. Control methods

The current control is carried out during the training sessions and aims to check the students' perception of educational material on a 4-point (national) scale. Forms of evaluation of current educational activities are standardized and include control of theoretical and practical training. During the assessment of the assimilation of each topic for the current educational activity, the student is assessed according to the 4-point (national). At the same time, all types of work provided for by the discipline program are taken into account. The student must receive an assessment on each topic for further conversion of grades into scores on a multi-point (200-point) scale

Evaluation criteria for current academic activities:

The **assessment is "*excellent*"** received by the student who took an active part in discussing the most difficult questions on the topic of the lesson, gave at least 90% of the correct answers to standardized test tasks, answered written tasks without errors, completed a practical task.

The **assessment of "*good*"** is received by the student who participated in the discussion of the most difficult questions on the topic, gave at least 75% of the correct answers to standardized test tasks, made some minor mistakes in responses to written tasks, completed a practical task with minor errors.

The **assessment is "*satisfactory*"** received by a student who did not participate in the discussion of the most difficult questions on the topic, gave at least 60% of the correct answers to standardized test tasks, made significant mistakes in responses to written tasks, completed a practical task with errors.
The **assessment is "*unsatisfactory*"** received by a student who did not participate in the discussion of the most difficult questions on the topic, gave less than 60% of the correct answers to standardized test tasks, made gross mistakes in responses to written tasks or did not answer them at all, did not perform a practical task.

The independent work of students, which is envisaged in the topic along with the classroom, is evaluated during the current control of the topic in the relevant classroom. Assimilation of topics that are submitted only for independent work is controlled during the exam.

Individual work in the form of writing a scheme of differential diagnosis of infectious exanthems and an algorithm for examining a patient with prolonged fever is carried out by students during the study of topics. Each individual work is rated at 3 points.

The student can work out the missed topics or put them on a positive assessment of the teacher during his consultations (individual work with students) no more than 3 times during the study of the discipline, thereby gaining the number of points not less than the minimum to be admitted to the exam.

For disciplines, the form of final control of which is the exam:

The maximum number of points a student can score for current academic activity per semester for admission to the exam is 120 points. The minimum number of points a student must score for the current academic activity for the semester for admission to the exam is 72 points.

10. Current control is carried out at each practical session according to the specific objectives of the topic and includes standardized forms of control of theoretical training and control of professional skills. solving typical situational problems), assessing the final level of knowledge in the classroom (solving situational problems of level III, interpreting the results of laboratory and other methods of examination of the patient). The student should receive an assessment on each topic. Forms of evaluation of current educational activities should be standardized and include control of theoretical and practical training.

Scores set on the traditional scale are converted into points. The maximum number of points a student can score for current academic activity in the study of discipline is 200 points. The minimum number of points that a student must score for current academic activity for enrollment of the discipline is 120 points.

11. The exam – is a form of final control of the student's assimilation of theoretical and practical material from the academic discipline for the semester, which is the result of a control event. The student confirms that he has been admitted to the test for the academic discipline if he has attended all the classroom training tasks provided for in the educational program for the discipline, completed all types of work provided for in the work program of the educational discipline, and while studying it during the semester has scored a number of points not less than the minimum.

The exam is conducted in written form during the examination session, according to the schedule. Forms of the exam are standardized and include control of theoretical training (using standardized tasks, oral or written survey) and control of professional skills (situational tasks, interpretation of the results of additional methods of examination of the patient) in accordance with the OKH. The maximum number of points that a student can score when taking the exam is 80. The minimum number of points when taking the exam is at least 50.

The assessment of the student's success in the discipline is exhibited only to students who are enrolled in all classes in the discipline. The assessment that the student scored in the discipline is defined as the arithmetic average in all classes of the discipline (the amount of points for all classes is divided by the number of classes in the discipline).

The objectivity of evaluation of students' academic activity should be checked by statistical methods (correlation coefficient between current performance and exam results).

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

The minimum number of points that a student must score for current academic activity per semester for admission to the exam is 72 points.

The calculation of the number of points *i*s carried out on the basis of the grades received by the student on the traditional scale during the study of the discipline, by calculation of Arithmetic Mean (AM), rounding to two digits after the comma. Obtained quantity is converted into points according to multipoint scale in the following way:

$$x = \frac{\text{AM} \times 120}{5}$$

For convenience, a recalculation table on a 200-point scale is given:

4 - point scale	**200 - point scale**
5	120
4.95	119
4.91	118
4.87	117
4.83	116
4.8	115
4.75	114
4.7	113
4.66	112
4.62	111
4.58	110
4.54	109
4.5	108
4.45	107
4.41	106
4.37	105
4.33	104
4.29	103
4.25	102
4.2	101
4.16	100
4.12	99
4.08	98
4.04	97
3.99	96
3.95	95
3.91	94
3.87	93
3.83	92
3.79	91
3.74	90
3.7	89
3.66	88
3.62	87
3.58	86
3.54	85
3.49	84
3.45	83
3.41	82
3.37	81
3.33	80
3.29	79
3.25	78
3.22	
3.2	77
3.16	76
3.15	
3.12	75
3.1	
3.08	74
3.04	73
3	72
Less than 3	Insufficient

The assessment in the discipline that ends with the exam is determined as the amount of points for current academic activity (not less than 72) and points for the exam (not less than 50). and on a 4-point scale.

ECTS Assessment Statistical Indicator

A The best 10% of students

B The Next 25% of students

C The Next 30% of students

D The Next 25% of students

E Latest 10% of students

Discipline points for students who have successfully completed the program are converted to the traditional 4-point scale according to the absolute criteria that are shown in the table below:

Points in discipline Score on a 4-point scale

From 170 to 200 points - 5

From 140 to 169 points - 4

From 139 points to the minimum number of points that a student must score - **3**

Below the minimum number of points that a student must score - 2

The ECTS score is not converted to the traditional scale because the ECTS scale and the four-score scale are independent.

The objectivity of assessing students' educational activities is checked by statistical methods (correlation coefficient between ECTS assessment and national scale assessment).

13. Methodological support

Teaching discipline at lectures is provided by methodological developments, clear means of training (presentations, educational films), information resource of the department.

Teaching of the discipline in practical classes is provided by methodological developments, the topics of independent and individual tasks, clear means of training (presentations, educational films and other means for practicing practical skills), information resource of the department, algorithms for the implementation of practical skills and structured algorithms for controlling skills. Independent and individual work in the studying of academic discipline is provided by methodological developments of the independent work of students.

14. Recommended Literature

Main (basic)

1. Infectious Diseases: textbook/ edited by O.A. Holubovska, M.A. Andreichyn, A.V. Shkurba, B.A. Herasun, O.M. Zinchuk et al. – Kyiv: AUS Medicine Publishing, 2018. – P 664

2. Harrison's infectious diseases/Dennis L Kasper; Anthony S Fauci/ New York:McGraw-Hill Education, ©2017

Additional literature

- Dennis L. Kasper, Anthony S. Fauci. Harrison's Infectious Diseases, Third Edition. 2016
- Katherine H. West. Infectious Disease Handbook for Emergency Care Personnel, Third Edition 3rd Edition. 2016
- Judith A. Aberg, Morton P. Goldman, Larry D., Ph.D. Gray. Infectious Diseases Handbook: Including Antimicrobial Therapy & Diagnostic Tests/Procedures -- 6th Edition (Diagnostic Medicine Series). 2005.
- Atlas of Infectious Diseases [M.A. Andreychyn, V.S. Kopcha, S.O. Kramarev, etc.]; edition by M.A. Andreychyn — 3rd edition. — Lviv: Magnolia, 2019.— 296 p.
- Basics of treatment of infectious diseases. O.P.Adamovych, O.B.Vorozhbyt, O.B.Gerasun and others. Lviv: LNMU, 2015. – 124 p.
- Recognition and diagnosis of infectious diseases/Manual for English-speaking students of medical universities. M. KryzhanSCa, O. Zubach, O.Vorozhbyt. Lviv: LNMU, 2018. – 95 p.

15. Information resources

- Verkhovna Rada of Ukraine http://www.rada.kiev.ua.
- Cabinet of Ministers of Ukraine http://www.kmu.gov.ua/.
- Ministry of Education, Science, Youth and Sports of Ukraine http://www.mon.gov.ua, www.osvita.com.
- The Ministry of Emergencies and Protection of the Population from the Consequences of the Chornobyl http://www.mns.gov.ua/.
- Ministry of Health http://www.moz.gov.ua/ua/portal/

- The National Security and Defense Council of Ukraine http://www.rainbow.gov.ua/.
- American Heart Association https://www.onlineaha.org/
- British Heart Foundation https://www.bhf.org.uk/