MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра інфекційних хвороб з епідеміологією

INFECTIOUS DISEASES

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council HHMI

Chairman of the Quality Council HHMI
Petrashenko Viktoriia Oleksandrivna

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DATA ON APPROVAL

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SYLLABUS

1. General information on the course

Full course name	Infectious Diseases
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра інфекційних хвороб з епідеміологією
Author(s)	Chemych Mykola Dmytrovych, Saienko Oleksandr, Chemych Oksana Mykolaivna, Klymenko Natalia, Svitailo Vladyslav Serhiiovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Duration	one semester
Workload	3 ECTS, 90 hours. For full-time course 50 hours are working hours with the lecturer (50 hours of seminars), 40 hours of the individual study.
Language(s)	English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	Krok-1, Necessary knowledge of: Integrated course of fundamental disciplines; Clinical anatomy and operative surgery; Pharmacology; Surgery, incl. pediatric surgery, neurosurgery; Ophthalmology.
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

improving the skills of diagnosis, treatment and prevention of infectious diseases.

4. Contents

Module 1. Intestinal infectious, protozoan and parasitic diseases. Topics 1 - 6.
Topic 1 Epidemiological, pathogenetic and clinical features of intestinal infections. Place of infectious diseases with fecal-oral transmission mechanism in the structure of infectious diseases. Modern methods of laboratory diagnostics. Indications for hospitalization and rules for discharge of patients from an infectious hospital. Rules for keeping medical records.

Topic 2 Diarrhea syndrome. Diagnosis and treatment of intestinal infections Diarrheal syndrome: etiology, pathogenesis, classification depending on the type of interaction micro- and macroorganism, clinical features, laboratory diagnostics. Differential diagnosis of acute infectious and non-infectious diarrhea (poisoning with mushrooms, heavy salts metals, exacerbation of chronic diseases of the digestive system, acute gynecological and surgical diseases).
Topic 3 Concept of enterotoxigenic and enteroinvasive diarrheas. Salmonellosis, food toxic infections caused by opportunistic flora, escherichia, cholera, intestinal yersiniosis, campylobacteriosis, shigellosis. Scheme of diagnosis and treatment. Emergency conditions in the case of acute diarrheal syndrome in infectious disease practice
Topic 4 Intestinal protozoa. Features of the clinic, diagnostics, treatment. Amoebiasis, clinical course of extraintestinal amoebiasis, features of laboratory diagnostics. Balantidiasis, classification, clinical course, laboratory diagnosis, complications. Giardiasis, features of the course, laboratory diagnosis. Differential diagnosis. Indications for hospitalization, rules for discharge of patients from an infectious hospital. Modern methods of treatment, medical assistance to patients at the pre-hospital stage. Principles of prevention.
Topic 5 Helminth infections: classification, principles of treatment. Nematodes. Cestodosiasis. Trematodoses. Nematodes (enterobiosis, ascariasis, trichocephalosis, trichinellosis, strongyloidiasis). Cestodoses (teniosis/cysticercosis, teniarynchosis, hymenolepidosis, echinococcosis). Trematodoses (opisthorchosis).
Topic 6 Differential diagnosis of chronic diarrheal syndrome in the clinic of infectious diseases. Differential diagnosis of infectious diseases with diarrhea syndrome with chronic diseases of the digestive system.
Module 2. Infectious diseases with jaundice syndrome. Topics 7 - 12.
Topic 7 Acute viral hepatitis with fecal-oral transmission mechanism (A, E). Viral hepatitis with a fecal-oral infection mechanism (VGA, VGE), features of the clinical course, laboratory diagnostics. Treatment. Peculiarities of the course of VGE in pregnant women. Prevention of VHA and VGE.
Topic 8 Acute viral hepatitis with a contact and vertical mechanism of transmission (B, C, D, mixed hepatitis). Features of the course of acute forms. Peculiarities of the clinical course, assessment of laboratory and instrumental indicators. Treatment.
Topic 9 Differential diagnosis of acute viral hepatitis. Complications of acute viral hepatitis. Chronic hepatitis.. Differential diagnosis of acute viral hepatitis. . Diagnostic features of the fulminant course of viral hepatitis. Acute hepatic encephalopathy: basics of clinical and laboratory diagnosis, features of treatment, emergency care for patients at the pre-hospital stage. Chronic viral hepatitis. Diagnostics. Treatment.

Topic 10 Features of the clinical course of infectious diseases accompanied by jaundice. Leptospirosis, tropical malaria, sepsis, yersiniosis and pseudotuberculosis, infectious mononucleosis, amoebic hepatitis and liver abscess, toxocarosis, acute opisthorchosis, fasciolosis, echinococcosis and alveococcosis.
Topic 11 Peculiarities of the epidemiological history and diagnosis of infectious diseases accompanied by jaundice. The role of epidemiological history in the clinical diagnosis of this kind of infectious diseases. Basic diagnostic algorithms. Interpretation of research results. The concept of the modern distribution of jaundice by species.
Topic 12 Differential diagnosis of infectious diseases accompanied by jaundice. Clinical features of various types of jaundice, the course of the most common non-infectious diseases with jaundice, their differential diagnosis with infectious diseases that occur with jaundice. and non-infectious jaundice (drug-induced, toxic hepatitis, alcoholic liver disease, non-alcoholic steatohepatosis, cholestatic jaundice, suprahepatic jaundice).
Module 3. Infectious diseases with an airborne transmission mechanism. Topics 13 - 15.
Topic 13 Infectious diseases with an airborne mechanism of transmission in the structure of infectious pathology. Epidemiological, pathogenetic and clinical features of infectious diseases of the respiratory tract. Procedure for hospitalization, examination and discharge of patients. Peculiarities of maintaining medical documentation. Diphtheria. Meningococcal infection. Features of diagnosis and treatment.
Topic 14 Influenza, parainfluenza, MS infection, adenovirus infection, coronavirus infection. Herpesvirus infections. Features of the modern epidemiological and clinical course. Characteristics of the pandemic process. Features of laboratory diagnostics, differential diagnosis, complications, prognosis. Modern methods of treating patients. Principles of immunoprophylaxis. Evaluation of specific and non-specific preventive measures. Medical care for patients at the pre-hospital stage. The role of animal and bird influenza viruses in human pathology, features of the epidemiological process and the clinical course of zoonotic influenza. Concepts of "ARI" and "ARVI".
Topic 15 Differential diagnosis of infectious diseases accompanied by acute respiratory syndrome. Respiratory mycoplasmosis, ornithosis, legionellosis, SARS. The role and place of the causative agent of tuberculosis in lesions of the respiratory tract. Approaches to the differential diagnosis of pulmonary tuberculosis. Features of treatment of atypical pneumonia. Medical assistance for emergency conditions related to respiratory infections.
Module 4. Infectious diseases with a transmissible transmission mechanism. Topics 16 - 21.

Topic 16 The main features of diagnosis, treatment and prevention of infections with a transmissible transmission mechanism.

The place of infectious diseases with a transmissible transmission mechanism in the structure of infectious pathology. Peculiarities of laboratory diagnostics, differential diagnosis, complications, treatment, emergency care. General characteristics of rickettsioses. Epidemic typhus. Brill-Zinser's disease. Endemic typhus. Ku fever. Marseille fever. Clinic. Diagnostics. Treatment.. Indications for hospitalization, rules for discharge from an infectious hospital.

Topic 17 Malaria: modern features of the epidemic process and clinical course. Leishmaniasis.

The problem of tropical malaria. Features of laboratory diagnostics, differential diagnosis, complications. Modern methods of treatment, medical care for patients at the pre-hospital stage, treatment tactics for complicated forms of tropical malaria, its cerebral form. Indications for examination for malaria. General and individual prevention of malaria. Classification of leishmaniasis. Principles of diagnosis and treatment.

Topic 18 Arbovirus infections and their role in clinical pathology. Tick-borne encephalitis. Ixodic tick-borne borreliosis.

Classification, diagnosis and treatment of tick-borne encephalitis, Japanese encephalitis, ixod tick-borne borreliosis. Pappatachi fever, features of the clinical course. The concept of hemorrhagic fevers. The main clinical syndromes of Marburg fever, Ebola, Lassa, dengue, Congo-Crimea, with renal syndrome. Features of laboratory diagnostics, principles of treatment.

Topic 19 Etiology, epidemiology and pathogenesis of HIV infection, classification of disease stages.

Prevalence, risk groups. Morphology of the pathogen. The main pathogenic properties of HIV. Clinical classification of disease stages. Criteria for establishing the stage of the disease. The main differences and problems of disease progression. The diagnosis criteria are large and small. Clinical picture of HIV infection.

Topic 20 AIDS. Basic clinical criteria. General characteristics of opportunistic infections.

Criteria for establishing the terminal stage of HIV infection. Types of opportunistic diseases. Classification. Main clinical aspects, features of diagnosis and treatment. Primary and secondary lesions of the CNS and PNS in HIV-infected patients. Tuberculosis as an AIDS indicator disease. TORCH infections. Toxoplasmosis.

Topic 21 Diagnosis of HIV infection. Principles and approaches to the treatment of patients with HIV infection.

Methods of nonspecific and specific diagnosis of HIV infection. Stages, methods of conducting laboratory diagnostics. Types of specific diagnostics. Indication. Non-specific diagnostics (risk criteria). General characteristics of drug groups used in the treatment of HIV infection. HAART.

Module 5. Infectious diseases with a wound mechanism of transmission. Quarantine infections. Topics 22-24.

Topic 22 Differential diagnosis of wound infections (rabies, tetanus, distemper, felinosis, sodoku). Rabies: features of the clinical course, diagnostics, differential diagnosis. Principles of treatment, medical care for patients at the pre-hospital stage. Emergency prevention of animal bites. Tetanus: features of the course, diagnosis, complications. Principles of treatment, medical care for patients at the pre-hospital stage. Emergency prevention of tetanus. Erythema: peculiarities of the course of various clinical forms, diagnosis, differential diagnosis, complications, prognosis. Felinosis: features of the course, differential diagnosis. Features of treatment. Disease from a rat bite: sodoku and streptobacillosis: features of the clinical course, treatment
Topic 23 Peculiarities of clinical course, diagnostics, principles of treatment of plague, tularemia, anthrax. Peculiarities of the clinical course, diagnosis of plague, tularemia, anthrax. Medical assistance to patients at the pre-hospital stage. Features of treatment.
Topic 24 Infectious diseases regulated by International Health Regulations. Quarantine infections. Infectious diseases regulated by International Health Regulations. Quarantine infections. Especially dangerous infections (plague, tularemia, anthrax): peculiarities of the clinical picture, diagnosis, treatment, prevention.
Module 6. Final module
Topic 25 Final module Solving situational problems (written work). Computer testing. Demonstration of practical skills.

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Apply skills in surveying and clinical examination of a patient.
LO2	Be able to determine the necessary list laboratory and instrumental studies and their assessment results
LO3	Be able to set preliminary and clinical diagnosis of the disease.
LO4	To be able to determine the necessary mode of work and rest during the treatment of diseases
LO5	Be able to determine the nature of food at treatment of diseases.
LO6	To be able to determine principles and character treatment of diseases.
LO7	Be able to diagnose emergency conditions.
LO8	Be able to determine the tactics of providing emergency care medical assistance.
LO9	Be able to provide emergency medical care
LO10	Be able to conduct medical evacuation activities
LO11	To be able to carry out sanitary and hygienic and preventive measures.
LO12	Be able to plan and carry out preventive measures and anti-epidemic measures for infectious diseases.

LO13	To be able to determine the tactics of conducting persons that are subject to dispensary supervision.
LO14	To be able to conduct an examination of working capacity.
LO15	Be able to keep medical records.
LO16	Be able to conduct epidemiological and medical statistical studies of population health; processing state, social, economic and medical information;
LO17	The ability to conduct events regarding the organization and integration of the provision of medical care to the population and marketing of medical services.
LO18	Be able to assess the influence of environment, socio-economic and biological determinants on the health of a person, family, or population
LO19	Be able to provide medical procedures

6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.
For 222 Medicine:

PO1	Skills in surveying and clinical examination of a patient
PO2	Ability to determine the required set of laboratory and instrumental studies and to evaluate their results
PO3	Ability to establish a provisional and clinical diagnosis of disease
PO4	Ability to determine the necessary mode of work and rest in the treatment course
PO5	Ability to determine a diet in the treatment course
PO6	Ability to determine the principles of treatment and treatment modality
PO7	Ability to diagnose medical emergencies
PO8	Ability to determine the approach to emergency medical care
PO9	Skills in emergency medical procedures
PO10	Ability to conduct medical evacuation procedures
PO11	Skills in performing medical procedures
PO13	Ability to perform sanitary and preventive measures
PO14	Ability to plan and conduct preventive and disease control measures for infectious diseases
PO15	Ability to manage the patients who are subject to dispensary monitoring
PO16	Ability to perform disability examination
PO17	Ability to maintain medical records
PO18	Ability to conduct epidemiological and medical-statistical research of public health; ability to process governmental, social, economic, and medical information
PO19	Ability to assess the influence of environment, socio-economic and biological determinants on the health of a person, family, or population

PO21	Ability to carry out measures for organization and integration of public medical care and marketing of medical service

7. The role of the course in the development of program competencies

Program competencies addressed by the course:
For 222 Medicine:

8. Teaching and learning activities

Topic 1. Epidemiological, pathogenetic and clinical features of intestinal infections.
pr.tr.1 "Diarrhea syndrome. Diagnosis and therapy of intestinal infections" (full-time course) Pathophysiological aspects of the development of diarrhea. Variants of diarrheal syndrome. The main pathogens of intestinal infections. Differential diagnosis of acute intestinal infections. Modern therapy of diarrheal infections.
Topic 2. Diarrhea syndrome. Diagnosis and treatment of intestinal infections
pr.tr.2 "Diarrhea syndrome. Diagnosis and treatment of intestinal infections" (full-time course) Typhoid. Paratyphus. Bacterial food poisoning. Salmonellosis. Campylobacteriosis. Cholera. Rotavirus enteritis. Intestinal yersiniosis, pseudotuberculosis. Clinic, diagnosis, treatment. Emergency care for dehydration shock.
Topic 3. Concept of enterotoxigenic and enteroinvasive diarrheas.
pr.tr.3 "Concept of enterotoxigenic and enteroinvasive diarrheas." (full-time course) Shigellosis. Amoebiasis. Balantidiasis. Giardiasis. Botulism. Differential diagnosis. Distal spastic hemorrhagic colitis syndrome. Scheme of diagnosis and treatment
Topic 4. Intestinal protozoa. Features of the clinic, diagnostics, treatment.
pr.tr.4 "Intestinal protozoa. Features of the clinic, diagnostics, treatment." (full-time course) Amebiasis, clinical course of intestinal amebiasis. Peculiarities of laboratory diagnosis of amebiasis, differential diagnosis, complications. Modern methods of treatment, medical care for patients at the pre-hospital stage, with extra-intestinal amebiasis. Balantidiasis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients at the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from an infectious hospital. Principles of prevention. Giardiasis, features of the course, laboratory diagnosis, differential diagnosis. Principles of treatment.
Topic 5. Helminth infections: classification, principles of treatment. Nematodes. Cestodosiasis. Trematodoses.
pr.tr.5 "Helminth infections: classification, principles of treatment. Nematodes. Cestodosiasis. Trematodoses." (full-time course) Nematodes (enterobiosis, ascariasis, trichocephalosis, trichinellosis, strongyloidiasis). Cestodoses (teniosis/cysticercosis, teniarynchosis, hymenolepidosis, echinococcosis). Trematodoses (opisthorchosis). Clinic, features of laboratory and instrumental diagnostics, differential diagnosis. Treatment and prevention.

Topic 6. Differential diagnosis of chronic diarrheal syndrome in the clinic of infectious diseases.
pr.tr.6 "Differential diagnosis of chronic diarrheal syndrome in the clinic of infectious diseases." (full-time course) Differential diagnosis of infectious diseases with diarrhea syndrome with chronic diseases of the digestive system.
Topic 7. Acute viral hepatitis with fecal-oral transmission mechanism (A, E).
pr.tr.7 "Acute viral hepatitis with fecal-oral transmission mechanism (A, E)." (full-time course) General characteristics of viral hepatitis. Classification. Viral hepatitis A. Viral hepatitis E. Features of the clinical picture. Diagnosis and treatment.
Topic 8. Acute viral hepatitis with a contact and vertical mechanism of transmission (B, C, D, mixed hepatitis).
pr.tr.8 "Acute viral hepatitis with a contact and vertical mechanism of transmission (B, C, D, mixed hepatitis)." (full-time course) Pathogenesis. Clinic of a typical form of acute viral hepatitis B, C, D. Complications. Laboratory and instrumental diagnostics. Principles of treatment. Prevention.
Topic 9. Differential diagnosis of acute viral hepatitis. Complications of acute viral hepatitis. Chronic hepatitis..
pr.tr.9 "Differential diagnosis of acute viral hepatitis. Complications of acute viral hepatitis. Chronic hepatitis.." (full-time course) Differential diagnosis of acute viral hepatitis: A, B, C, D, E. Complications of acute viral hepatitis. Chronic hepatitis B, C.
Topic 10. Features of the clinical course of infectious diseases accompanied by jaundice.
pr.tr.10 "Features of the clinical course of infectious diseases accompanied by jaundice." (full-time course) Jaundice syndrome. Classification of jaundice. Differential diagnosis.
Topic 11. Peculiarities of the epidemiological history and diagnosis of infectious diseases accompanied by jaundice.
pr.tr.11 "Peculiarities of the epidemiological history and diagnosis of infectious diseases accompanied by jaundice." (full-time course) The role of epidemiological history in the clinical diagnosis of this kind of infectious diseases. Basic diagnostic algorithms. Interpretation of research results. The concept of the modern distribution of jaundice by species.
Topic 12. Differential diagnosis of infectious diseases accompanied by jaundice.

pr.tr.12 "Differential diagnosis of infectious diseases accompanied by jaundice." (full-time course)

Clinical features of various types of jaundice, the course of the most common non-infectious diseases with jaundice, their differential diagnosis with infectious diseases that occur with jaundice.

Topic 13. Infectious diseases with an airborne mechanism of transmission in the structure of infectious pathology.

pr.tr.13 "Infectious diseases with an airborne mechanism of transmission in the structure of infectious pathology." (full-time course)

Epidemiological, pathogenetic and clinical features of infectious diseases of the respiratory tract. Procedure for hospitalization, examination and discharge of patients. Peculiarities of maintaining medical documentation. Diphtheria. Meningococcal infection. Features of diagnosis and treatment.

Topic 14. Influenza, parainfluenza, MS infection, adenovirus infection, coronavirus infection. Herpesvirus infections.

pr.tr.14 "Influenza, parainfluenza, MS infection, adenovirus infection, coronavirus infection. Herpesvirus infections." (full-time course)

Features of the modern epidemiological and clinical course. Characteristics of the pandemic process. Features of laboratory diagnostics, differential diagnosis, complications, prognosis. Modern methods of treating patients. Principles of immunoprophylaxis. Evaluation of specific and non-specific preventive measures. Medical care for patients at the pre-hospital stage. The role of animal and bird influenza viruses in human pathology, features of the epidemiological process and the clinical course of zoonotic influenza. Concepts of "ARI" and "ARVI".

Topic 15. Differential diagnosis of infectious diseases accompanied by acute respiratory syndrome.

pr.tr.15 "Differential diagnosis of infectious diseases accompanied by acute respiratory syndrome." (full-time course)

Respiratory mycoplasmosis, ornithosis, legionellosis, SARS. The role and place of the causative agent of tuberculosis in lesions of the respiratory tract. Approaches to the differential diagnosis of pulmonary tuberculosis. Features of treatment of atypical pneumonia. Medical assistance for emergency conditions related to respiratory infections.

Topic 16. The main features of diagnosis, treatment and prevention of infections with a transmissible transmission mechanism.

pr.tr.16 "The main features of diagnosis, treatment and prevention of infections with a transmissible transmission mechanism." (full-time course)

The place of infectious diseases with a transmissible transmission mechanism in the structure of infectious pathology. Peculiarities of laboratory diagnostics, differential diagnosis, complications, treatment, emergency care. General characteristics of rickettsioses. Epidemic typhus. Brill-Zinser's disease. Endemic typhus. Ku fever. Marseille fever. Clinic. Diagnostics. Treatment.. Indications for hospitalization, rules for discharge from an infectious hospital.

Topic 17. Malaria: modern features of the epidemic process and clinical course. Leishmaniasis.

pr.tr.17 "Malaria: modern features of the epidemic process and clinical course. Leishmaniasis." (full-time course)

The problem of tropical malaria. Features of laboratory diagnostics, differential diagnosis, complications. Modern methods of treatment, medical care for patients at the pre-hospital stage, treatment tactics for complicated forms of tropical malaria, its cerebral form. Indications for examination for malaria. General and individual prevention of malaria. Classification of leishmaniasis. Principles of diagnosis and treatment.

Topic 18. Arbovirus infections and their role in clinical pathology. Tick-borne encephalitis. Ixodic tick-borne borreliosis.

pr.tr.18 "Arbovirus infections and their role in clinical pathology. Tick-borne encephalitis. Ixodic tick-borne borreliosis." (full-time course)

Classification, diagnosis and treatment of tick-borne encephalitis, Japanese encephalitis, ixod tick-borne borreliosis. Pappatachi fever, features of the clinical course. The concept of hemorrhagic fevers. The main clinical syndromes of Marburg fever, Ebola, Lassa, dengue, Congo-Crimea, with renal syndrome. Features of laboratory diagnostics, principles of treatment.

Topic 19. Etiology, epidemiology and pathogenesis of HIV infection, classification of disease stages.

pr.tr.19 "Etiology, epidemiology and pathogenesis of HIV infection, classification of disease stages." (full-time course)

Prevalence, risk groups. Morphology of the pathogen. The main pathogenic properties of HIV. Clinical classification of disease stages. Criteria for establishing the stage of the disease. The main differences and problems of disease progression. The diagnosis criteria are large and small. Clinical picture of HIV infection.

Topic 20. AIDS. Basic clinical criteria. General characteristics of opportunistic infections.

pr.tr.20 "AIDS. Basic clinical criteria. General characteristics of opportunistic infections." (full-time course)

Criteria for establishing the terminal stage of HIV infection. Types of opportunistic diseases. Classification, clinical picture, diagnosis, treatment. Primary and secondary lesions of the CNS and PNS in HIV-infected patients. Main clinical aspects, features of diagnosis and treatment. Tuberculosis as an AIDS indicator disease. TORCH infections. Toxoplasmosis.

Topic 21. Diagnosis of HIV infection. Principles and approaches to the treatment of patients with HIV infection.

pr.tr.21 "Diagnosis of HIV infection. Principles and approaches to the treatment of patients with HIV infection." (full-time course)

Methods of nonspecific and specific diagnosis of HIV infection. Stages, methods of conducting laboratory diagnostics. Types of specific diagnostics. Indication. Non-specific diagnostics (risk criteria). General characteristics of drug groups used in the treatment of HIV infection. HAART.

Topic 22. Differential diagnosis of wound infections (rabies, tetanus, distemper, felinosis, sodoku).

pr.tr.22 "Differential diagnosis of wound infections (rabies, tetanus, distemper, felinosis, sodoku)." (full-time course) Rabies: features of the clinical course, diagnostics, differential diagnosis. Principles of treatment, medical care for patients at the pre-hospital stage. Emergency prevention of animal bites. Tetanus: features of the course, diagnosis, complications. Principles of treatment, medical care for patients at the pre-hospital stage. Emergency prevention of tetanus. Erythema: peculiarities of the course of various clinical forms, diagnosis, differential diagnosis, complications, prognosis. Felinosis: features of the course, differential diagnosis. Features of treatment. Rat bite disease: sodoku and streptobacillosis: features of the clinical course, treatment.
Topic 23. Peculiarities of clinical course, diagnostics, principles of treatment of plague, tularemia, anthrax.
pr.tr.23 "Peculiarities of clinical course, diagnostics, principles of treatment of plague, tularemia, anthrax." (full-time course) Plague: pathogenesis, clinic, diagnosis, treatment, prevention. Scheme of anti-epidemic measures in case of detection of a plague patient. Tularemia: pathogenesis, classification, clinical picture, diagnosis, treatment. Anthrax: pathogenesis, classification, clinical picture, diagnosis, treatment.
Topic 24. Infectious diseases regulated by International Health Regulations. Quarantine infections.
pr.tr.24 "Infectious diseases regulated by International Health Regulations. Quarantine infections." (full-time course) Infectious diseases regulated by International Health Regulations. Quarantine infections. Basic principles of modern diagnostics. Principles of carrying out anti-epidemic measures. Protection of medical personnel and the population, prevention of infection.
Topic 25. Final module
assessm.25 "Final module" (full-time course) Solving situational problems (written work). Computer testing. Demonstration of practical skills.

9. Teaching methods

9.1 Teaching methods

Course involves learning through:

TM1	Interactive lectures
TM2	Case-based learning (CBL). Training based on the analysis of a clinical case, situation
TM3	Team-based learning (TBL)
TM4	Research-based learning (RBL)
TM5	Role playing game
TM6	Brain storm
TM7	Educational discussion / debate

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which contribute not only to the development of professional abilities, but also stimulate creative and scientific activity and are aimed at training practice-oriented specialists.

The discipline ensures that students acquire the following soft skills: ZK 1. Ability to abstract thinking, analysis and synthesis. ZK 2. Ability to learn, master modern knowledge and apply it in practical situations. ZK 3. Knowledge and understanding of the subject field and understanding of professional activity. ZK 4. Ability to adapt and act in a new situation. ZK 5. Ability to make informed decisions; work in a team; interpersonal skills. ZK 7. Ability to use information and communication technologies ZK 8. Determination and persistence in relation to assigned tasks and assumed responsibilities.

9.2 Learning activities

LA1	Preparation for practical classes
LA2	Self-study
LA3	Preparation for KROK-2
LA4	Interpretation of laboratory (clinical blood analysis, urine, biochemical blood analysis, immunological studies, etc.) and instrumental (ECG, Echocardiogram, EFGDS, ultrasound, CT, X-ray, spirography, etc.) examination methods
LA5	Analysis of clinical cases
LA6	Practical work with the patient in specialized departments of the hospital
LA7	Electronic learning in systems (Zoom, MIX.sumdu.edu.ua)
LA8	Preparation for current and final control
LA9	Participation in discussions (group and pair)

10. Methods and criteria for assessment

10.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	170 ≤ RD ≤ 200
Above the average standard but with minor errors	4 (Good)	164 ≤ RD < 169
	4 (Good)	140 ≤ RD < 163
Fair but with significant shortcomings	3 (Satisfactory)	127 ≤ RD < 139
	3 (Satisfactory)	120 ≤ RD < 126
Fail – some more work required before the credit can be awarded	2 (Fail)	70 ≤ RD < 119
	2 (Fail)	0 ≤ RD < 69

10.2 Formative assessment

	Description	**Deadline, weeks**	**Feedback**

FA1 Peer assessment	Partnership interaction, aimed at improving results educational activity for comparison accountown currentlevel of success withprevious ones indicators. Provides possibility of analysis own education activities	During the entire period of studying the discipline	Correction together with the acquirers of approaches to learning with taking into account the evaluation results
FA2 Testing	A method of effective verification of the level of assimilation of knowledge, abilities and skills from an educational discipline. Testing allows you to check the results of training after completing the discipline.	During the entire period of studying the discipline	The maximum number of points for testing is 10 points for the condition getting 100% correct answers. The minimum score for successfully passing the tests is 6 points (60% of correct answers)
FA3 Protection of an individual research project (speech at a conference, competition of scientific works)	An important factor in the formation of professional qualities of future specialists is the research work of students. Involvement of the latter in research activities contributes to the formation of their scientific worldview, industriousness, ability to work, initiative, etc.	During the entire period of studying the discipline	Teacher's oral comments. Additional are provided to the student incentive points (from 5 to 10), depending on the type of research project
FA4 Instructions of the teacher in the process of performing practical tasks	The guidelines reveal methods of pedagogical control according to the professional activity of the acquirers. Efficiency is determined by compliance with all stages of practical tasks. Effectiveness of formation the required practical skills and abilities depend on the level formation of practical competence	During the entire period of studying the discipline	Counseling of students in working with a standardized patient, direct and indirect observation of the work of examiners "at the patient's bedside" with subsequent determination of the level of practical training

FA5 Survey and teacher's oral comments based on his results	Provides an opportunity to reveal the state of experience gained by students educational activity in accordance with the set goals, to find out the prerequisites of the state of formation of the obtained results, the reasons for the occurrence of difficulties, to correct learning process, track the dynamics of the formation of results training and predict their development.	During the entire period of studying the discipline	Based on the received data on learning outcomes, based on their analysis, it is proposed to define the assessment as an indicator of achievements educational activities of applicants
FA6 The task of assessing the theoretical level preparation	Assessment of acquired theoretical knowledge on the subject of the discipline. It is conducted at each practical session, respectively specific goals of each topic based on comprehensive assessment of student activity, including level control theoretical training, performance of independent work according to thematic plan	During the entire period of studying the discipline	Feedback is aimed at supporting students' independent work, identifying shortcomings and assessment of the level of acquired theoretical knowledge
FA7 Solving clinical cases	The case method makes it possible to reveal and form the qualities and abilities of medical students necessary for further work, forms clinical thinking, analytical abilities, independence in decision-making, communication, skills for working with a sufficiently large amount of information.	During the entire period of studying the discipline	Assessment of the student's ability to think clinically, to justify his decisions, to clearly express his thoughts, determination of the level of theoretical training reflected in corresponding assessment
FA8 Practical skills test	Practicing practical skills on various dummies and simulators.	During the entire period of study. At the last lesson, the student must successfully perform practic	Successful implementation of practical skills in the discipline is admission to the differentiated credit.

FA9 Focus group discussions	The method allows all participants to engage in the process of discussing and justifying their own opinions through multilateral communication, develop the ability to conduct a professional discussion, cultivate respect for colleagues and the ability to generate alternative ideas and proposals.	During the entire period of studying the discipline	Оцінка здатності студента до роботі в команді, вміння обгрунтовувати свої рішення, визначення рівня теоретичної підготовки, що відображається у відповідній оцінці

10.3 Summative assessment

	Description	**Deadline, weeks**	**Feedback**
SA1 Tests (automated tests) to monitor students' academic achievements	A method of effectively checking the level of knowledge, skills and abilities on each topic of the discipline. Testing allows you to check the mastery of educational material on each topic.	During the entire period of studying the discipline	The student must provide 60% of the correct answers, which is an admission to the practical part of the class
SA2 Oral survey	The level of theoretical training is determined	During the entire period of studying the discipline	It is held at every lesson. The result of execution affects for a comprehensive assessment for a practical session
SA3 Final control: differentiated credit	Passing a differentiated test. Applicants who have attended all previous classes, successfully mastered the material in the discipline and have passed the practical skills are allowed to take the test.	According to the schedule	An applicant can receive 80 points based on the results of the test. The minimum number of points a student must receive is 48 points

Form of assessment:

	Points	Можливість перескладання з метою підвищення оцінки
The semester of teaching	**200 scores**	
SA1. Tests (automated tests) to monitor students' academic achievements	**24**	
24x1	24	No
SA2. Oral survey	**96**	
24x4	96	No
SA3. Final control: differentiated credit	**80**	
oral answer	30	No
situational task	40	No
computer test	10	No

When learning the materials of the module, the student is awarded a maximum of 5 points for each practical session (the grade is given in the traditional 4-point grading system). At the end of the academic year, the student's arithmetic average is calculated. The maximum number of points that a student can receive in practical classes during the academic year is 120. The number of points of a student is calculated using the formula of multiplying 120 by the arithmetic average and dividing by 5. The student receives a maximum of 40 points for testing. The minimum number of points that a student must receive is 24 points. The maximum number of points for the current educational activity of the student is 120. The student is admitted to the final module control under the condition of fulfilling the requirements of the educational program and if he has scored at least 72 points for the current educational activity. Practically-oriented final module control is conducted according to the schedule at the end of the study of the discipline. Examination tickets contain 3 practical-oriented tasks on the subject and cover all sections of the academic discipline (40 points), a practical task and questions on providing emergency care (30 points). Test module control (10 points). The final module control is credited to the student, if he scored at least 48 points out of 80, with all positive evaluations (testing + practical skills + practical orientation of the task). Incentive points are added to the evaluation of the discipline for the implementation of an individual research project (defense of a student's scientific work - 15 points, speech at a conference - 5 points, poster presentation at a conference - 4 points, theses of reports - 4 points). The total score for the discipline cannot exceed 200 points.

11. Learning resources

11.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library funds, archive of radiographs, spirograms, electrocardiograms, computer tomograms, results of laboratory examination methods
MTS3	Computers, computer systems and networks

MTS4	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smartboards, etc.)
MTS5	Software (to support distance learning, Internet surveys, virtual laboratories, virtual patients, to create computer graphics, modeling, etc., etc.)
MTS6	KNP SOR "Regional Clinical Medical Center of Socially Dangerous Diseases"
MTS7	Medical equipment (spirometer, peak flow meter, electrocardiograph, height meter, scales, fibrogastroscope, tonometer, phonendoscope, etc.)

11.2 Information and methodical support

Essential Reading	
1	Infectious Diseases: A Clinical Short Course, 4th Edition / Frederick S. Southwick — McGraw Hill / Medical; 4th edition (May 11, 2020). — 496 p.
Supplemental Reading	
1	Infectious Diseases : textbook / O.A. Holubovska, M.A. Andreichyn, A.V. Shkurba et al. ; edited by O.A. Holubovska. — Kyiv : AUS Medicine Publishing, 2018. — 664 p.
2	Recognition and diagnosis of infectious diseases/ M. Kryzhanska, O. Zubach, O.Vorozhbyt // – L'viv: LNMU, 2018. – 95p.
Web-based and electronic resources	
1	http://infection.med.sumdu.edu.ua/
2	http://217.196.164.19/ukr/kafedra/journals.php
3	http://www.recipe.by/izdaniya/periodika/parazitologiya/
4	http://emedicine.medscape.com/infectious_diseases
5	http://www.freebooks4doctors.com/
6	http://www.who.int/ru/
7	http://www.atlas-protozoa.com/
8	http://www.flyingpublisher.com/9005.php

COURSE DESCRIPTOR

№	Course Bescriptor	Total hours	Classroom work, hours				Independent work of students, hours						
			Total hours	Lectures	Workshops (seminars)	Labs	Total hours	Self-study of the material	Preparation for workshops (seminars)	Preparation for labs	Preparation for assesment	Independent extracurricular tasks	
1	2	3	4	5	6	7	8	9	10	11	12	13	
full-time course													
Module 1. Intestinal infectious, protozoan and parasitic diseases. Topics 1 - 6.													
1	Epidemiological, pathogenetic and clinical features of intestinal infections.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
2	Diarrhea syndrome. Diagnosis and treatment of intestinal infections	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
3	Concept of enterotoxigenic and enteroinvasive diarrheas.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
4	Intestinal protozoa. Features of the clinic, diagnostics, treatment.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
5	Helminth infections: classification, principles of treatment. Nematodes. Cestodosiasis. Trematodoses.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
6	Differential diagnosis of chronic diarrheal syndrome in the clinic of infectious diseases.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
Module 2. Infectious diseases with jaundice syndrome. Topics 7 - 12.													
1	Acute viral hepatitis with fecal-oral transmission mechanism (A, E).	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
2	Acute viral hepatitis with a contact and vertical mechanism of transmission (B, C, D, mixed hepatitis).	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
3	Differential diagnosis of acute viral hepatitis. Complications of acute viral hepatitis. Chronic hepatitis..	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
4	Features of the clinical course of infectious diseases accompanied by jaundice.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
5	Peculiarities of the epidemiological history and diagnosis of infectious diseases accompanied by jaundice.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	

1	2	3	4	5	6	7	8	9	10	11	12	13
6	Differential diagnosis of infectious diseases accompanied by jaundice.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Module 3. Infectious diseases with an airborne transmission mechanism. Topics 13 - 15.												
1	Infectious diseases with an airborne mechanism of transmission in the structure of infectious pathology.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
2	Influenza, parainfluenza, MS infection, adenovirus infection, coronavirus infection. Herpesvirus infections.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
3	Differential diagnosis of infectious diseases accompanied by acute respiratory syndrome.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Module 4. Infectious diseases with a transmissible transmission mechanism. Topics 16 - 21.												
1	The main features of diagnosis, treatment and prevention of infections with a transmissible transmission mechanism.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
2	Malaria: modern features of the epidemic process and clinical course. Leishmaniasis.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
3	Arbovirus infections and their role in clinical pathology. Tick-borne encephalitis. Ixodic tick-borne borreliosis.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
4	Etiology, epidemiology and pathogenesis of HIV infection, classification of disease stages.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
5	AIDS. Basic clinical criteria. General characteristics of opportunistic infections.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
6	Diagnosis of HIV infection. Principles and approaches to the treatment of patients with HIV infection.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Module 5. Infectious diseases with a wound mechanism of transmission. Quarantine infections. Topics 22-24.												
1	Differential diagnosis of wound infections (rabies, tetanus, distemper, felinosis, sodoku).	2.5	2	0	2	0	0.5	0	0.5	0	0	0
2	Peculiarities of clinical course, diagnostics, principles of treatment of plague, tularemia, anthrax.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
3	Infectious diseases regulated by International Health Regulations. Quarantine infections.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Module 6. Final module												

1	2	3	4	5	6	7	8	9	10	11	12	13
1	Final module	0	0	0	0	0	0	0	0	0	0	0
Assesment												
1	Graded Credit	6	0	0	0	0	6	0	0	0	6	0
Independent extracurricular tasks												
1	extracurricular tasks	24	0	0	0	0	24	0	0	0	0	24
Total (full-time course)		*90*	*48*	*0*	*48*	*0*	*42*	*0*	*12*	*0*	*6*	*24*

	UNIVERISTY POLICIES FOR THE COURSE «Infectious Diseases» **Higher education level** The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle **Major: Educational programme** 222 Medicine: Medicine **Form of study** full-time course **Language of instruction** English
Teacher(s)	Chemych Mykola Dmytrovych, Saienko Oleksandr, Chemych Oksana Mykolaivna, Klymenko Natalia, Svitailo Vladyslav Serhiiovych
Contact	Chemych Mykola Dmytrovych - n.chemych@kinf.sumdu.edu.ua Chemych Oksana Mykolaivna - o.chemych@med.sumdu.edu.ua Klymenko Natalia Vasylivna - n.klimenko@kinf.sumdu.edu.ua Saienko Oleksandr Serhiyvich - o.saienko@kinf.sumdu.edu.ua Svitailo Vladyslav Serhiiovich - v.svitailo@med.sumdu.edu.ua
Time and room for giving consultations	University Clinic (Akademichna St., 9) - every Wednesday from 4:00 p.m. to 6:00 p.m.,on Saturdays - 9:00 a.m. to 11:00 a.m. It is necessary to sign up for the internship in advance on the department's website (Educational process/ Schedule of internships, consultations, credits, curation)
Links to online educational platforms	Mix.sumdu.edu.ua, Zoom, Google meet, electronic mailbox, personal account.
Link to the syllabus in the course catalogue	https://pg.cabinet.sumdu.edu.ua/report/course/77cf67ce215dd98fd2555df8c6521c904473955
Communication tools	Mix.sumdu.edu.ua, Zoom, Google meet, electronic mailbox, personal account.

POLICIES

Academic integrity policy

All assignments specified in the syllabus must be completed by the student independently. Cheating during any type of assessment is prohibited. The work of a higher education student must not contain plagiarism, fabrication, falsification, or cheating. All written assignments are subject to a plagiarism check, followed by the instructor's analysis of the results in order to determine the correctness of references to textual and illustrative sources.

During the study of the course, other manifestations of academic dishonesty, as defined by the University Code of Academic Integrity, are also unacceptable.

In case of violations of academic integrity by a higher education student during the study of the course, the instructor has the right to take one of the following actions:

- reduce by up to 40% the number of points earned for a practical assignment;
- provide recommendations for revising a compulsory homework assignment with a reduction of the final score by up to 25%;
- not accept a compulsory homework assignment without granting the right to resubmit it;
- assign a retake of a written module or final assessment with a reduction of the final score by up to 15%;
- refuse to grant a retake of a written module or final assessment.

Policy on the use of artificial intelligence tools

The policy on the use of artificial intelligence tools is announced by the instructor at the beginning of the course.

It is forbidden to use artificial intelligence tools for the preparation of works defined by the syllabus and regulations of the academic discipline.

Несанкціоноване використання інструментів штучного інтелекту є порушенням академічної доброчесності.

Policy on the use of open access resources

When utilizing materials from open-access sources in the preparation of assignments specified in the syllabus, students must strictly adhere to the terms of the applicable Creative Commons licenses and ensure proper attribution in accordance with copyright regulations.

Attendance policy

Class attendance is mandatory. Under justified circumstances (e.g., illness, participation in academic mobility programs), studies may be conducted according to an individual schedule.

Policy on deadlines and retakes

In the case of an unsatisfactory result, the student has the right to retake the module test. The retake is carried out in time for the final test according to a separate schedule approved by the dean's office. Students who do not appear for the test without a valid reason are considered to have received a failing grade. A student's refusal to complete a module assignment is certified as an unsatisfactory answer. The student has the right to receive an explanation of the grade received.

If the total number of points obtained as a result of all assessments corresponds to a passing grade (subject to the mandatory requirement of fulfilling all conditions specified in the syllabus and regulations), it is considered final; a passing grade may not be retaken for the purpose of improvement.

The elimination of academic debt is carried out in accordance with the Regulations on the Organization of the Educational Process of Sumy State University, taking into account the established deadlines, forms of assessment, and procedures for retaking assessment activities.

Policy on appealing assessment results

Appeals and consideration of applications from higher education students regarding the assessment of learning outcomes are carried out in accordance with the Regulations on the Organization of the Educational Process of Sumy State University.

Assessment criteria

The semester of teaching

SA3. Final control: differentiated credit, 80 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **68-80 points**
4 (Good) *Above the average standard but with minor errors*	$140 \leq RD < 169$ **56-67 points**
3 (Satisfactory) *Fair but with significant shortcomings*	$120 \leq RD < 139$ **48-55 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	$0 \leq RD < 119$ **0-47 points**
SA1. Tests (automated tests) to monitor students' academic achievements, 24 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **21-24 points**

4 (Good) *Above the average standard but with minor errors*	140 ≤ RD < 169 **17-20 points**
3 (Satisfactory) *Fair but with significant shortcomings*	120 ≤ RD < 139 **15-16 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	0 ≤ RD < 119 **0-14 points**
SA2. Oral survey, 96 scores	
5 (Excellent) *Outstanding performance without errors*	170 ≤ RD ≤ 200 **82-96 points**
4 (Good) *Above the average standard but with minor errors*	140 ≤ RD < 169 **68-81 points**
3 (Satisfactory) *Fair but with significant shortcomings*	120 ≤ RD < 139 **58-67 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	0 ≤ RD < 119 **0-57 points**