Topical plan
of discipline "Microbiology, virology and immunology" for students of the specialty I2 "Medicine"
for the 5 semester 2025-2026 academic year

№	Topic	Hours
1	The role of viruses in human pathology. Classification, morphology and physiology of viruses. Features of antiviral immunity. Microbiology of influenza and diseases caused by SARS-CoV and SARS-CoV-2 coronaviruses.	2
2	Microbiology of viral hepatitis and HIV infection. AIDS-associated infections.	2
3	Basics of sanitary microbiology.	2
		Total 6 hours

№	Topic	Hours
	Module III Special microbiology (cont.)	
1	Microbiology of mycoplasmosis.	2
2	Microbiology of chlamydial infections.	2
3	Microbiology of opportunistic and deep mycoses.	2
4	Microbiology of dermatomycosis.	2
5	Pathogenic protozoa. Microbiology of protozoonoses.	2
6	**Final control on the content module "Special microbiology"** *(control of practical skills and theoretical knowledge by testing "STEP-1").*	**2**
	Module IV. General and special virology. Clinical and sanitary microbiology	
7	Structure, classification and features of virus activity. Methods of laboratory diagnosis of viral infections and their features. Features of antiviral immunity.	2
8	Orthomyxoviruses. Biological features of pathogens and laboratory diagnosis of influenza.	2
9	Paramyxoviruses. Pathogens of measles, mumps, parainfluenza, RS infection. Methods of laboratory diagnosis of diseases.	2
10	Togaviruses, the causative agent of rubella. Respiratory adenoviruses. Bocaviruses.	2
11	Coronaviruses. Diseases are caused by the coronavirus SARS-CoV and SARS-CoV-2.	
12	Picornaviruses. Laboratory diagnosis of enterovirus infections: polio, Coxsackie, ECHO. Rotaviruses.	2
13	Pathogens of hepatitis A, E, F. Laboratory diagnosis of hepatitis.	2
14	Pathogens of parenteral viral hepatitis. Laboratory diagnosis of parenteral viral hepatitis.	2
15	Retroviruses. Laboratory diagnosis of HIV-infection (AIDS) and T-cell leukemia.	
16	Pathogens of natural focal infections. Flaviviruses. Laboratory diagnosis of European tick-borne encephalitis, yellow fever, dengue fever, Omsk hemorrhagic fever.	
17	Pathogens of natural-focal infections. Bunyaviruses. Laboratory diagnosis of Crimean-Congo hemorrhagic fever and Hemorrhagic fever with renal syndrome. Ebola fever.	2
18	Microbiology of alpha-herpesvirus infections.	2
19	Microbiology of beta- and gamma-herpesvirus infections.	
20	Poxviruses. Laboratory diagnosis of smallpox. Vaccine virus: origin, antigens, use in genetic engineering. Rhabdoviruses. Laboratory diagnosis of rabies.	2
21	Oncogenic viruses. Polyomaviruses. Papillomaviruses. Pathogens of slow infections. Prion diseases.	2
22	Basics of sanitary microbiology and virology. Sanitary and microbiological control of objects of the external environment, water, air, soil, food products, medicines.	2
23	General characteristics of clinical microbiology. Clinical microbiology: definition, tasks. The concept of opportunistic infections.	2

24	Nosocomial infections. Definitions, basic concepts, diagnostic methods.	2
25	**"Final control on the content module "DNA-viruses. Clinical and sanitary microbiology"** *(control of practical skills and theoretical knowledge by testing "STEP-1").*	2
26	Execution of test tasks.	2
27	Execution of practical skills.	2
		Total 54 hours