

**Thematic Plan of Seminar Classes for the course “Immunology” for students admitted in 2024 in the educational program 31.05.01 General Medicine, specialization (profile): General Medicine (Specialist Degree Program), full-time mode of study for the 2026–2027 Academic Year**

<b>№</b>	<b>Thematic Blocks</b>	<b>Practical training within the thematic block<sup>3</sup></b>	<b>Hours (Academic)<sup>4</sup></b>
<b>Semester 6</b>			
1.	Introduction to immunology <sup>1</sup> . The concept of immunity. The subject and tasks of immunology. Types of immunity. Principles of functioning of the immune system. Antigens: nature, structure, classification, properties. Mechanisms of innate immunity. Phagocytosis. Methods for studying the phagocytic activity of leukocytes. Presentation of exo- and endogenous antigens <sup>2</sup> .	-	4
2.	Humoral immune response <sup>1</sup> . Cellular basis. Immunoglobulins: nature, structure, types, functions, and dynamics of production during primary and secondary immune responses. Serological research methods. Characteristics of "antigen-antibody". The complement system and its functions. Methods for studying the complement system <sup>2</sup> .	PT	4
3.	Cellular immunity <sup>1</sup> . T-cell differentiation. Regulatory functions of T-lymphocytes. The main subpopulations of T-lymphocytes. Specific and nonspecific cellular cytotoxicity, mechanism, biological significance. Cytokines as factors regulating the immune response. Immunological tolerance <sup>2</sup> .	-	4
4.	Control of knowledge, skills, and abilities for Module 1 "General Immunology"	-	4
5.	Tumor immunology <sup>1</sup> . Key immunological mechanisms of antitumor defense. Mechanisms of tumor "escape" from immunological surveillance. Immunological diagnosis of tumors. Approaches to tumor immunotherapy. Infection and immunity. Immune response to bacterial, viral, fungal, and helminthic infections; ways infectious agents "escape" immune surveillance <sup>2</sup> .	-	4
6.	Immunoprophylaxis of infectious and non-infectious diseases <sup>1</sup> . Immunological monitoring of infectious and non-infectious diseases. Immunobiotechnology. Development of vaccines and immunobiological products. National vaccination calendar. Immunology of reproduction. Immunological factors in the development of infertility <sup>2</sup> .	-	4
7.	Basic concepts of autoimmunity <sup>1</sup> . Autoimmune diseases. Classification. Hypotheses of origin.	-	4

	Approaches to diagnosis and treatment. Transplantation immunology <sup>2</sup> .		
8.	Control of knowledge, skills, and abilities for Module 2 "Private immunology"	-	4
9.	Introduction to clinical immunology <sup>1</sup> . Age-related features of immunity. Principles of immune status assessment. The main types of immunopathology. Primary and secondary immunodeficiency states, classification, principles of diagnosis and treatment. Immunotropic drugs <sup>2</sup> .	PT	4
10.	The concept of allergy <sup>1</sup> . Classification and mechanisms of allergic reactions. Pseudoallergic reactions. Principles of diagnosis and treatment of allergic and pseudoallergic reactions <sup>2</sup> .	PT	4
11.	Allergic diseases of the respiratory tract and skin <sup>1</sup> . Clinical recommendations <sup>2</sup> .	PT	4
12.	Control of knowledge, skills, and abilities for Module 3 "Clinical Immunology"	-	4
Total			48

<sup>1</sup> – topic

<sup>2</sup> – essential content

<sup>3</sup> – PT (practical training)

<sup>4</sup> – one thematic block includes several classes, the duration of one class is 45 minutes, with a break between classes of at least 5 minutes

Reviewed and approved at the meeting of the Department of Immunology and Allergology, Minutes №10 dated “22” May 2026.

Head of the Department



E.B. Belan