

Thematic Plan of Seminar Classes for the course “Immunology – clinical immunology” for students admitted in 2024 in the educational program 31.05.03 Dentistry, specialization (profile): Dentistry (Specialist Degree Program), full-time mode of study for the 2026–2027 Academic Year

№	Thematic blocks ¹	Practical training in the framework of TB3 ³	Hours (academic) ⁴
Semester 5			
1	Introduction to immunology. ¹ The structure and functional organization of the immune system. Types of immunity. Innate immunity. Components of innate immunity: physical, chemical, biological barriers ²		4
2	Antigens, basic concepts. Properties of antigens. Antigen processing and presentation. HLA molecules and genes ²		4
3	Humoral immune response. The cellular basis. Antibodies, nature, structure, types, functions. Serological research methods ²		4
4	Cellular immunity of the oral cavity. Differentiation of T-lymphocytes. The main subpopulations of T-lymphocytes. Specific and nonspecific cellular cytotoxicity, mechanism, biological significance ²		4
5	Cytokines as factors regulating the immune response of the oral cavity. The complement system and its functions ²		4
6	Infection and immunity. Immune response in bacterial, viral, and fungal infections of the oral cavity, and parasitic infestations. Pathways of pathogen elimination. Mechanisms of evading immune protection ²		4
7	Antitumor immunity. ¹ The concept of tumor markers. Types of tumor markers. Mechanisms of antitumor immunity ² Immunological tolerance. ¹ Natural and artificial tolerance ²		4
8	Concluding #1. Control of knowledge, skills, and abilities in the modular unit 1 ¹		4
9	The subject and objectives of clinical immunology in dentistry. ¹ The main types of immunopathological conditions in dentistry. Age-related features of the immune system ²		4

10	Assessment of immune status, principles and methods. ¹ Lymphoproliferative diseases. ¹ Infections of the immune system. ¹	PP	4
11	Immunodeficiency conditions. ¹ Features of the dental status of children with primary immunodeficiency. Autoimmune diseases. ¹		4
12	The concept of allergy. ¹ Main allergens. Classification of allergic reactions. Allergic diseases in dental practice. Basic principles of diagnosis of allergic diseases. Pseudoallergic reactions ²		4
13	Allergic diseases of the respiratory tract. ¹ Main allergens. Clinical manifestations. Diagnostics. Principles of treatment and prevention ²	PP	4
14	Allergic skin diseases. ¹ Main allergens. Clinical manifestations. Diagnostics. Principles of treatment and prevention ²		4
15	Drug allergy. ¹ Clinical manifestations. Diagnosis ²		4
16	Urgent conditions caused by immunopathological mechanisms. ¹ Immunotropic drugs in dental practice. ¹		4
17	Immunoprophylaxis of viral infections. ¹		4
18	Concluding #2. Control of knowledge, skills, and abilities in the modular unit 2 ¹		4
		Total	72

¹ – topic

² – essential content

³ – PP (practical training)

⁴ – one thematic block includes several classes, the duration of one lesson 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