

**Thematic plan for seminar-type classes
in discipline "Pathology"
for students of 2023 year of admission
under the educational program
33.05.01 Pharmacy,
specialization (profile) Pharmacy (specialty)
Full-time
for the 2025-2026 academic year**

No	Thematic blocks	Practical training within the framework of TB	Hours (academic)
The 3 rd semester			
1	Introduction to pathology. Research methods and the subject of pathology. Etiology and pathogenesis. Disease and health. Reactivity in pathology. Cellular pathology. Lipid metabolism pathology. Carbohydrate metabolism disorders.	PP	2
2	Reversible and irreversible cellular damage. Pathology of protein and water-electrolyte metabolism.	PP	2
3	Metabolic pathology. Disorders of pigment and mineral metabolism.	PP	2
4	Necrosis: types, characteristics. Apoptosis, its mechanisms.	PP	2
5	Circulatory disorders. Anemia. Plethora. Ischemia. Infarction. Stasis. Bleeding. Hypoxia.	PP	2
6	Blood clotting pathology. Thrombosis. Embolism. DIC syndrome.	PP	2
7	Final lesson on the section "Damage and death of cells and tissues", "Circulatory disorders".	PP	2
8	Inflammation. Etiology. Mediators. Alteration. Exudation. Acute inflammation.	PP	2
9	Productive inflammation. Chronic inflammation.	PP	2
10	Immunopathological processes. Hypersensitivity reactions. Auto-immune diseases. Immunodeficiencies.	PP	2
11	Compensatory and adaptive processes: atrophy, hypertrophy, sclerosis. Regeneration, types, their characteristics. Wound healing. Fever. Hyperthermia. Hypothermia.	PP	2
12	Extreme conditions. Stress. Shock. Crush syndrome. Collapse. Coma. Hypervitaminosis. Hypovitaminosis	PP	2
13	Final lesson on the sections "Inflammation", "Immunopathological processes", "Adaptation and regeneration processes", "Extreme conditions", "Hypervitaminosis. Hypovitaminosis".	PP	2
14	General characteristics of the tumor process. Epithelial tumors genesis.	PP	2

15	Tumors of mesenchymal origin. Tumors of nervous and melanin-forming tissues. Organ-specific tumors.	PP	2
16	Blood diseases. Hemoblastoses. Lymphomas. Anemias.	PP	2
The 4 th semester			
17	Diseases of the cardiovascular system. Atherosclerosis. Hypertension disease.	PP	2
18	Diseases of the cardiovascular system. Coronary heart disease. Etiology, pathogenesis, classification, pathological changes. Rheumatic diseases. Rheumatism. Systemic lupus erythematosus. Rheumatoid arthritis. Periarteritis nodosa. Scleroderma, dermatomyositis, ankylosing spondylitis. Systemic lupus erythematosus. Rheumatoid arthritis. Periarteritis nodosa. Scleroderma, dermatomyositis, ankylosing spondylitis.	PP	2
19	Impaired cardiac conduction, excitability, and contractility. Main types of ECG in pathology. Heart pathology. Heart defects. Heart failure.	PP	2
20	Final lesson on the section "Diseases of the heart and blood vessels".	PP	2
21	Lung diseases. Acute lung diseases.	PP	2
22	Lung diseases. Chronic lung diseases. Lung cancer.	PP	2
23	General etiology of gastrointestinal diseases. Digestive disorders in the oral cavity. Main disorders of swallowing and passage of food through the esophagus. Disturbances in the volume of secretion and composition of gastric juice. Esophagitis. Gastritis. Main dyspeptic syndromes. Etiology and pathogenesis of intestinal obstruction. Intestinal dysbacteriosis. Enteritis. Colitis. Appendicitis. Peptic ulcer of the gastrointestinal tract. Stomach cancer.	PP	2
24	Liver pathology. Jaundice. Hepatosis. Hepatitis. Liver cirrhosis. Liver cancer. Cholecystitis. Housing and communal services Pancreatitis.	PP	2
25	Kidney diseases. Acute and chronic renal failure. Glomerulo- and tubulopathies. Glomerulonephritis. Pyelonephritis. Cystitis. Urolithiasis. The concept of renal hypertension.	PP	2
26	Final lesson on the sections "Lung diseases", "Gastrointestinal diseases", "Diseases of the liver, bile ducts and exocrine pancreas", "Kidney diseases".	PP	2
27	Pathology of the endocrine system. Pathology of the hypothalamus, pituitary gland, thyroid gland, adrenal glands. Diabetes mellitus.	PP	2

28	Pathology of the reproductive system. Diseases of the male reproductive system. Sexually transmitted infections or predominantly sexually transmitted infections. Diseases of the prostate gland: prostatitis, benign hyperplasia, cancer. Diseases of the testicles and their appendages. Diseases of the mammary glands and female reproductive system. Diseases of the cervix and body of the uterus. Diseases of the ovaries and fallopian tubes. Endometriosis. Tumors. Pathology of pregnancy, the postpartum period, and the placenta.	PP	2
29	Pathology of the nervous system: vascular, demyelinating, degenerative diseases of the central nervous system. Disorders of neuronal function and interneuronal connections. Disorders of higher nervous activity	PP	2
30	Infectious process. Principles of classification of infectious diseases. Sepsis as a special form of infectious disease development. Viral infections. Influenza, parainfluenza, adenovirus infection. Herpes. Measles. AIDS.	PP	2
	Intestinal infections. Cholera. Typhoid fever. Dysentery.	PP	2
	Tuberculosis. Syphilis. Rickettsioses. Typhus.	PP	2
	Final lesson on the sections “Pathology of the endocrine system”, “Pathology of the reproductive system”, “Pathology of pregnancy, the postpartum period and the placenta”, “Pathology of the nervous system”, “Viral infections”, “Intestinal infections”, “Infectious and parasitic diseases”.	PP	2
17	Pathology associated with environmental factors. Pneumoconiosis. Alcohol intoxication and alcoholism, drug addiction, substance abuse.	PP	2
	Total		68

Considered at the meeting of the Department of Pathological Anatomy
protocol of May 29, 2025, protocol №. 10

Head of the Department

A.V. Smirnov