## Thematic plan for seminar-type classes in discipline "Human Anatomy" for students of 2025 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 frame- work of TB	Hours (academic)
	The 1st semester		
1	Introduction to Anatomy. The subject of human anatomy. History of anatomy. Principles of modern anatomy. Research methods in anatomy. Anatomical terminology. The main stages of ontogenesis.	PP	4
2	Cell structure. Structural components of the cell. Plasma membrane, nucleus, nucleolus. Main components of the cytoplasm: membrane and non-membrane organelles, inclusions. Organelles of special significance. Cell cycle.	PP	4
3	Tissues. Definition of "tissue." Classification of tissues. Epithelial tissues. Classification of epithelium. Structure and functions of squamous, cuboidal, and columnar epithelium. Connective tissue: blood and lymph, hematopoietic tissues (lymphoid and myeloid), fibrous connective tissues (loose and dense), connective tissues with special properties (adipose, reticular, mucous, pigment).	PP	4
4	Osteology. Bone tissue. Bone classification. Bones: their shape, structure, chemical composition, physical properties. Parts of the skeleton. Structure of the vertebrae. Skull and bones of the axial skeleton. Skeleton of the extremities. Bones of the pelvic girdle. Skeleton of the free part of the upper limb. Bones of the pelvic girdle of the lower limb. Skeleton of the free part of the lower limb.	PP	4
5	Myology. Muscle structure and classification. Muscles of the trunk, head, and neck. Muscles of the chest and abdomen. Muscles of the upper and lower limbs. Accessory apparatus of muscles.	PP	4
6	Final lesson on thematic units: introduction to anatomy, cell structure, tissue, osteology, syndesmology, and myology. Test on thematic units: introduction to anatomy, cell structure, tissue, osteology, syndesmology, and myology.	PP	4
7	Splanchnology. General overview of the anatomy of the digestive organs. Oral cavity, teeth, salivary glands. Tongue, pharynx, esophagus, stomach, small and large intestines. Liver, gallbladder, pancreas.	PP	4

8	Splanchnology. General overview of the anatomy of the respiratory organs. Nasal cavity, larynx, trachea. Bronchi, lungs, pleura, mediastinum.	PP	4
9	Splanchnology. Structure of the urinary organs. Kidneys, ureters, bladder. Male reproductive organs.	PP	4
10	Splanchnology. Female genitalia. Perineum.	PP	4
11	The doctrine of the endocrine organs. Neurogenic group: pituitary gland, pineal gland. Branchiogenic group of glands: thyroid gland, parathyroid glands, thymus. Adrenal system group: adrenal gland, paraganglia. Endocrine parts of the sex glands. Endocrine part of the pancreas.	PP	4
12	Final lesson on thematic units: splanchnology, the study of the endocrine organs. Test assessment on thematic units: splanchnology, the study of the endocrine organs.	PP	4
13	The doctrine of the hematopoietic organs and the immune system. Hematopoiesis: myelopoiesis and lymphopoiesis. Classification and structure of the hematopoietic and immune defense organs.	PP	4
14	Angiology. General overview of the circulatory system. Heart. Circulatory systems. Arteries, veins. Microcirculatory vessels.	PP	4
15	Neurology. General overview of the structure of nervous tissue and the nervous system. The central and peripheral nervous systems. Concept of the somatic and autonomic nervous systems. Central nervous system: spinal cord. Central nervous system: brain. Telencephalon. Cytoarchitecture of the cerebral cortex. Cerebral hemispheres. Diencephalon. Midbrain. Hindbrain: pons and cerebellum. Cerebellar cortex. Medulla oblongata.	PP	4
16	Final lesson on thematic units: the study of hematopoietic organs and the immune system. Angiology. Neurology. Test control on thematic units: the study of hematopoietic organs and the immune system.	PP	4
17	Organ of vision. Organ of taste. Vestibule-cochlear organ (organ of hearing and balance). General covering (skin).	PP	4
	Total		68

Considered at the meeting of the Department of Pathological Anatomy protocol of May 29, 2025, protocol  $N_2$ . 10

Head of the Department

A.V. Smirnov