

**ANNOTATION**  
**work program of the discipline**  
**"ANATOMY"**

Speciality	05/31/01 General medicine
Number of credits	In accordance with the RUP
Interim certification form (test/test/exam)	test/exam

**1. The purpose of studying the discipline-**formation of students' knowledge of human anatomy and topographic anatomy, the structure of both the body as a whole and individual organs and systems, based on modern achievements of macro- and microscopy; formation of skills to use the acquired knowledge in the subsequent study of other fundamental and clinical disciplines, as well as in the future professional activity of a doctor.

**2. Brief**content of the discipline

1). Section 1: Introduction to Human Anatomy.

Section Contents

History of anatomy. History of Russian anatomy. General structure of human body development. The concept of organs and organ systems. The position of man in nature. The order of studying the discipline. Axes and planes. Meaning of anatomical terms of the International Anatomical Nomenclature (in Latin and Russian).

2). Section 2: The study of bones - osteology.

Section Contents

General information about skeletal anatomy. Brief data on phylo-, ontogenesis, embryogenesis of bones. Classification of bones by structure, shape, development and function. The structure of the bones of the torso, skull and limbs. Variants and anomalies of development of skeletal bones. Age characteristics. X-ray anatomy of the spinal column and chest, skull, upper limb skeleton, lower limb skeleton

3). Section 3: The study of bone joints - arthrosyndesmology. Section

Contents

General information about bone joints. Bone joints, their classification by structure and function. Joints, their classification and structure. Anatomical and biomechanical classification of joints. Connection of the bones of the torso and skull, bones of the limbs. X-ray anatomy of the joints of the bones of the trunk, skull and limbs.

4).Section 4: The study of muscles -

myology. Section Contents

Functional anatomy of the muscular system. Muscle as an organ. Auxiliary apparatus of muscles. Age-related characteristics of the muscular system. Anomalies of muscle development. Classification by origin. The structure of the muscles and fascia of the trunk, head, neck and limbs. Features of muscles of different sections. Muscle topography: canals, grooves, pits, bone-fibrous canals.

5). Section 5: The doctrine of the insides - splanchnology.

Section Contents

Development and age-related characteristics of the digestive system. Characteristic features and patterns of the structure of the walls of the digestive tube. Anomalies in the development of the digestive organs of the abdominal cavity and pelvis, peritoneum. The structure of the organs of the digestive system. Peritoneum, its functions, topography. Development, age-related characteristics of the respiratory organs in ontogenesis. Anatomy and topography of the respiratory tract. Lungs and pleura, structure, topography. Mediastinum. Genitourinary apparatus. Patterns of development, structure and anatomical and topographical relationships of the organs of the genitourinary apparatus. Brief data on ontogeny

urinary and genital organs. Anomalies in the development of organs of the urinary system. X-ray anatomy of the digestive, respiratory and genitourinary systems.

6). Section 6: Study of blood vessels - angiology.

Section Contents

Functional anatomy of the cardiovascular system. General anatomy, topography, development, anomalies and functions of the heart and blood vessels. Patterns of branching of arteries and the formation of veins. Intersystem and intrasystem anastomoses (arterial, venous). Blood circulation in the fetus. The structure of the vascular system of the trunk, head and limbs. X-ray anatomy of arteries, veins.

7). Section 7: Organs of the immune and lymphatic systems.

Section Contents

Central and peripheral organs of the immune system, their topography and structure, age-related characteristics. Lymphatic capillaries, vessels, regional lymph nodes, lymphatic ducts and trunks. Superficial and deep lymphatic vessels and nodes of the trunk, head, neck and limbs. X-ray anatomy of the lymphatic system.

8). Section 8: Endocrine glands.

Section Contents

Classification, structural features and topography of the endocrine glands.

9). Section 9: Central nervous system.

Section Contents

General ideas about the nervous system. Development of the nervous system in ontogenesis, age-related features. Developmental anomalies. Reflex arc. Spinal cord, shape, topography, anatomical formations. Brain. Divisions of the brain, topography, boundaries, surfaces, composition. Internal structure. The membranes of the brain. Interthecal spaces of the brain. X-ray anatomy of the central nervous system. Anatomical and functional classification of the conductive tracts of the spinal cord and brain.

10). Section 10: The study of the sense organs -  
aesthesiology. Section Contents

Anatomical and functional characteristics of the sense organs: vision, hearing, smell, taste, touch and balance. Anatomical and functional characteristics of analyzers, their topography, age characteristics; conductive sections and cortical ends (centers) of analyzers.

11). Section 11: Peripheral nervous system. Section

Contents

Spinal nerves. Patterns of formation of spinal nerves, branches, formation of plexuses. Plexus of spinal nerves, their topography, branches and areas of innervation. Cranial nerves. Anatomical and topographical characteristics and classification; development. Characteristics of individual cranial nerves; topography of nuclei, places of exit from the brain and skull; their branches, zones of innervation. Autonomic nervous system. Patterns of development and function of the autonomic nervous system, its division into sympathetic and parasympathetic parts, their anatomical and topographical features within the central nervous system and on the periphery. Reflex arc of the autonomic nervous system. Local topography of the centers of the autonomic nervous system. Patterns of autonomic innervation of the organs of the head and neck, chest, abdominal cavities and pelvic organs.