Level: bachelor

Course title: Basics of Human Anatomy

Status: obligatory

ECTS: 3

Requirements: None

Learning objectives

Acquiring knowledge about the anatomy of the human body, which will be the basis for further studies and application of the acquired knowledge in all branches of medical physics.

Learning outcomes

Acquiring practical knowledge in anatomy: identification of mutual relations of particular anatomical structures of organ systems, including vessel-nerve structures, as well as morphological and functional features of individual systemic and topographic parts. Learning about anatomical structures using cadaveric preparations, as well as the X-ray, NMR and CT techniques as the basis for post mortem examination and surgical techniques, radiological treatments and radiotherapy.

Syllabus

Theoretical instruction

Human gross anatomy with emphasis on functional considerations relating to the head, neck, back, extremities, thorax, abdomen, pelvis. Anatomical movements. Gross anatomy of skin and connective tissue The mamma. General features of the bones. Fibrous and cartilaginous joints. Synovial Joints. General form, attachments and action of skeletal muscles.

Macroscopic features of the structure of the blood vessels. Maternal-foetal circulation. Normal circulatory changes at birth.

General consideration of the nervous system - somatic nervous system. General consideration of the nervous system - autonomic nervous system. Ossa faciei. Cervical vertebrae, joints, superf. region of the neck, cervical fasciae, sternocleidomastoid muscle, supra et infrahyoid muscles. Craniofacial and masticatory muscles. Topographic and clinical significance of the nervous system of the head and neck.

Oral cavity. Paranasal sinuses. Nasal cavity Pharynx, para and retropharyngeal space. Trachea & bronchi. Lunges & pleura. Heart & pericardium. Thoracic duct & right lymphatic duct. Oesophagus. Vagus & phrenic nerves. Thoracic part of the sympathetic system. Upper limb. Peritoneum & peritoneal cavity. Anterolateral wall of the abdomen. Spleen. Liver & pancreas. Stomach. Intestine. Kidneys. Other organs of the retroperitoneal space.

Gross anatomy of the endocrine glands Pelvic inlet & outlet. Male reproductive system. Female reproductive system. Lymphatic system Surface morphology of the CNS. Internal structure of the Spinal cord, Brainstem.

Sensory pathways, Visual system, Auditory system and Vestibular system Sense organs *Practical instruction*

Frontal, parietal and occipital bones. Sphenoid & ethmoid bones. Temporal bones. Mandibule. Maxilla. Temporal, infratemporal & pterygopalatine fossa. Nasal cavity, orbital cavity, cranium neonati. Blood vessels of the neck. Lateral and anterior vertebral muscles. Oral cavity. Larynx, thyroid and parathyroid glands. Trachea & bronchi. Thyroid and parathyrod glands. Thoracic wall lungs & pleura. Heart & pericardium. Aorta. Pulmomary trunk. Vene cavae. Pulmonary venis. Azygos veins. Upper limb. Axilla. Anterior aspect of the upper limb. Scapular region. Posterior region. Joints of the upper limb. Lower limb. Thigh (anterior and medial aspect). Leg (anterior and lateral aspect). Gluteal region. Leg (posterior aspect). Peritoneum & peritoneal cavity. Spleen. Liver & pancreas. Stomach. Intestine. Kidneys. Skeletal pelvis. Pelvic cavity. Urinary bladder. Male reproductive system. Female reproductive system. Surface morphology of the CNS. Internal structure of the Spinal cord, Brainstem, Cerebellum and Diencephalon. Internal structure of the basal ganglia, Cerebral cortex, White matter. Limbic system, Olfactory pathways. Ventricles of the brain, Meringes, Arteries, Venous sinuses. Sense organs.

Weekly teaching load				Other:
Lectures: 2	Exercises: 1	Other forms of teaching:	Student research:	