



INTERNATIONAL SCHOOL OF MEDICINE

SYLLABUS

Program:	General medicine
Qualification of the graduate:	General practitioner / Medical doctor
Year:	2021-2022
Semester:	1, 2 semesters
Course duration:	20 weeks
Instructor/Assistant/Professor	Name: Lector: Imanalieva A.S.
Department:	Macro- and microanatomy
Day and Time for consultation:	
Classroom:	312
e-mail:	
Course Title:	1
Must/Elective:	
Credit/Hours:	12/ 360
Course Description:	The purpose is the formation of students' knowledge of human anatomy, both of the body as a whole, and of individual organs and systems, on the basis of modern achievements in macro- and microscopy; the ability to use the knowledge gained in the subsequent study of other fundamental and clinical disciplines, as well as in the future professional activity of a doctor.
Course Objectives:	<ol style="list-style-type: none"> 1. studying of the constitution, functions and topography of organs of the human body, anatomical and topographic relationships of organs, their X-ray image, individual and age-related features structure of the body, including the prenatal period of development (organogenesis), variants of variability of individual organs and their malformations. 2.the formation of students' knowledge about the interdependence and unity of the structure and function of both individual organs and the body as a whole, about the relationship of the body with changing environmental conditions, the influence of environmental, genetic factors, the nature of work, profession, physical culture and social conditions on development and the structure of the body. 3. the formation of an integrated approach among students in the study of the anatomy and topography of organs and their systems; synthetic understanding of the structure of the human body as a whole as the relationship of individual parts of the body; ideas about the importance of fundamental research in anatomical science for applied and theoretical medicine.

<p>Prerequisites:</p>	<p>the basic knowledge necessary for studying the discipline is formed in the cycle of humanitarian and socio-economic disciplines, including: philosophy, bioethics, psychology and pedagogy, history of medicine, Latin; in a cycle of mathematical and natural science disciplines, including: physics, mathematics, chemistry, biology, histology, embryology, cytology. The main theoretical disciplines required for the study of human anatomy: biology, physics, chemistry.</p>
<p>Post-requisites:</p>	<p>under the study the relationship of human anatomy with other medical disciplines is used in the form of integrating teaching it with biology, histology, physiology, pathology and applied clinical disciplines. Relationship with pharmacology. The development of the human body in ontogenesis is described and a brief comparison is made with the development of vertebrates at the Department of Human Anatomy. Materials from the course of human anatomy help to understand the biological nature of a person, structural, age and sex characteristics of the human body, the morphological basis of the action of pharmacological drugs. Based on the requests and requirements of clinical disciplines (nursing in therapy with a course of primary health care, nursing care for various diseases and conditions, etc.), as well as medical and preventive disciplines, examples from the clinic are widely used in teaching human anatomy.</p>
<p>Learning Outcomes: (expected knowledge & ability at the end)</p>	<p>A graduate in the specialty 560001 "General Medicine" with the assignment of the qualification of a specialist "General practitioner" in accordance with the State Educational Standard of Higher Professional Education and MEP and the tasks of professional activity, must have the following professional competencies:</p> <p>PC -1 - is able and ready to comply with the rules of medical ethics, laws and regulations on working with confidential information, and maintain medical secrecy.</p> <p>PC - 7 is able and ready to work with medical and technical equipment used in work with patients, to use the capabilities of modern information technologies to solve professional tasks.</p> <p>PC – 15 - is able and ready to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological characteristics, the basic methods of clinical and laboratory examination and assessment of the functional state of the body of an adult and children, for the timely diagnosis of diseases and pathological processes.</p>
<p>Basic references:</p>	<ol style="list-style-type: none"> 1. Human Anatomy. B.D. Chaurasia's. Volume one, v. two, v. three. CBS Publishers & Distributors, 2016. 2. Clinical anatomy for medical students. Richard S. Snell. Lippincott. Williams & Wilkins, 2000. 3. Lecture notes. J. White. Kalpan, Inc. 2019.

	<ol style="list-style-type: none"> 4. The developing human. Keith L. Moore. Elsevier, Inc. 2019. 5. Carmine D. Clemente. Anatomy, regional atlas of the human body 5th edition. Lippincott. Williams & Wilkins, 2006. 6. Atlas of Human Anatomy. H. Netter ISBN 3-905298-05-8 Basel, 2003. 7. Textbook of human anatomy. M.R. Sapin., L.L. Kolesnikov., D.B. Nikitjuk. In two volumes. New Wave Publishing Agency, Moscow, 2010. 8. Human anatomy. M. G. Prives. Volume I, II. English translation. Mir Publishers, Moscow, 1985. 9. Textbook of anatomy with clinical correlations. I. Singh. Volume 1, 2, 3. Jaypee Brothers Medical Publisher LTD & New Delhi, 2011. 10. The Human Body in Health & Disease. Memmler. Cochen Wood, 1996. 11. Human anatomy, Gosling, Harris, Humpherson, Whitmore. Mosby-Wolfe, 1995. 12. Grant's atlas of anatomy. Agur Dalley. Lippincott. Williams & Wilkins, 2003.
<p>Supplementary Textbook and Materials:</p>	<ol style="list-style-type: none"> 1. Textbook. The systemic anatomy of the bones and joints. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. Textbook. 2. The systemic anatomy of the skull. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. 3. Textbook. The systemic anatomy of the muscular system. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. 4. Textbook. The systemic anatomy of the digestive system. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. 5. Textbook. The systemic anatomy of the respiratory and endocrine systems. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. 6. Textbook. The systemic anatomy of the urinary and reproductive systems. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2018. 7. Textbook. The systemic anatomy of the central nerve system. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2019. 8. Textbook. The systemic anatomy of the sensory organs. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2019. 9. Textbook. The systemic anatomy of the cardiovascular and lymphatic systems. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2019. 10. Textbook. The systemic anatomy of the peripheral nerve system. Y. Gaivoronskaya., A. Imanalieva., V. Lobzova. Private printing-house, 2019.

COURSE POLICY AND EVALUATION CRITERIA:

Type of control (current, milestone, final)	Control form	Assessment of learning outcomes
Attendance	For one missed lesson minus 2 points	20 points
Current control	Oral survey, written work	20 points
IWS+IWW	Performing assignments, work with literature	20 points
Milestone control (modul submission)	Testing, control tasks	40 points
Final control (differential test)	Conversation, examination (test.edu.kg)	100 points

Scale of correspondence between grades and scores on the final control (exam)	
Score	Grade
90-100	«excellent»
76-89	«good»
60-75	«satisfactory»
0-59	«unsatisfactory»

1 semester

Course Plan	Lecture / Practice	Subject
1 class	P	Osteology - vertebrae, feathers, sternum.
2 class	P	Osteology - the bones of the upper limb.
3 class	P	Osteology - the bones of the lower limb.
4 class	P	Syndesmology - the joints of the bones of the trunk.
5 class	P	Syndesmology - joints of the upper limb bones.
6 class	P	Syndesmology - joints of the bones of the lower limb.
7 class Modul 1 (Date)	P	Module “Osteosyndesmology”
8 class	P	Skull. The bones of the cerebral skull are parietal, frontal, occipital, ethmoid, sphenoidal and temporal.
9 class	P	The bones of the facial skull.
10 class	P	Skull as a whole.
11 class Modul 2 (date)	P	Module “Skull”
12 class	P	Muscles and fascia of the head and neck.
13 class	P	Muscles and fascia of the thorax, back, abdomen. Topographic features. Weak points of the abdominal wall. Diaphragma.
14 class	P	Muscles of the upper limbs.
15 class	P	Muscles of the lower limbs.

16 class Module 3 (date)	P	Module "Myology"
17 class	P	Oral cavity, salivary glands. Pharynx.
18 class	P	Esophagus, stomach, intestines.
19 class	P	Liver. Pancreas. Peritoneum.
20 class	p	The nasal cavity. Paranasal sinuses. Larynx.
21 class	p	Trachea, bronchi, lungs, pleura.
22 class	p	Kidneys. Ureters, urinary bladder. The female urethra.
23 class	p	Male genital organs.
24 class	p	The female reproductive system.
25 class	p	Endocrine system.
26 class Module 4 (date)	p	Module "Splanchnology"
27 class	p	Final class

1 semester

Course Plan	Lecture / Practice	Subject
1 class	L	Introduction to Human Anatomy. Osteology is the study of bones. Axes and planes. Anatomical terminology. Vertebrae, feathurs, sternum.
2 class	L	Osteology - the bones of the upper limb.
3 class	L	Osteology - the bones of the lower limb.
4 class	L	Syndesmology is the study of bone connections. The vertebral column as a whole. Connections of the ribs and sternum.
5 class	L	Syndesmology - joints of the upper limb bones.
6 class	L	Syndesmology - joints of the bones of the lower limb.
7 class	L	Visceral arches and their derivatives.
8 class	L	Skull. The bones of the cerebral skull are parietal, frontal, occipital, ethmoid, sphenoidal and temporal.
9 class	L	The bones of the facial skull.
10 class	L	Skull as a whole.
11 class	L	General muscle anatomy.
12 class	L	Muscle development. Muscles of the human trunk. Weak points.
13 class	L	Biomechanics of the muscles of the upper limbs.
14 class	L	Biomechanics of the muscles of the lower limbs.
15 class	L	Introduction to splanchnology, oral cavity, salivary glands. Pharynx.
16 class	L	Esophagus, stomach, intestines.
17 class	L	Glands of the digestive tract.
18 class	L	Peritoneum. Derivatives of the peritoneum.
19 class	L	General overview of the respiratory system. Nasal cavity, larynx.
20 class	L	Trachea, bronchi, lungs, pleura.
21 class	L	General overview urinary system.
22 class	L	Male reproductive system. Internal male genital organs.
23 class	L	Male reproductive system. External male genital organs.
24 class	L	The female reproductive system.
25 class	L	Endocrine system.
26 class	L	Systemic anatomy of internal organs
27 class	L	Working off missed lectures.

2 semester

Course Plan	Lecture / Practice	Subject
1 class	P	Spinal cord. Topography of the nuclei and pathways of the gray and white matter of the spinal cord. Meninges.
2 class	P	Medulla. Pons. Rhomboid fossa. IV ventricle. Midbrain.
3 class	P	Cerebellum. Diencephalon. III ventricle.
4 class	P	The morphology of the cerebral hemispheres – sulci, gyri. Cortical analyzers. Basal nuclei.
5 class	P	White matter of the hemispheres. Lateral ventricles. The meninges of the brain. Pathways of the spinal cord and brain.
6 class	P	The organ of vision. Eye structure. Auxiliary apparatus of the eye. The visual pathway.
7 class	P	The organ of hearing. Outer and middle ear. Inner ear. Auditory and vestibular pathways.
8 class Modul 1 (Date)	P	Module «Central nervous system and sensory organs»
9 class	P	Motor cranial nerves - III, IV, VI, XI, XII. General characteristics. Cervical plexus.
10 class	P	Anatomy of the trigeminal nerve.
11 class	P	Mixed cranial nerves - VII, IX, X. General characteristics.
12 class	P	Heart - form, structure. Valve apparatus. Blood supply, innervation.
13 class	P	Carotid arteries (common, external, internal). Branches and areas of blood supply.
14 class	P	Subclavian artery. Veins of the head and neck. Regional lymph nodes of the neck.
15class Modul 2 (date)	P	Module «Vessels and nerves of the head and neck»
16 class	P	Descending aorta, thoracic part. Veins of the thoracic cavity. Lymphatic trunks and ducts of the thoracic cavity.
17 class	P	The abdominal part of the aorta. Inferior vena cava. Portal vein.
18 class	P	Vessels of the pelvic cavity. Lymphatic system of cavities, regional lymph nodes.
19 class	P	Intercostal nerves. Lumbar plexus. Sacral plexus, short branches.
20 class	p	The autonomic nervous system.
21 class Modul 3 (date)	p	Module «Vessels and nerves of cavities».
22 class	p	Vessels of the upper limb. Regional lymph nodes.
23 class	p	Brachial plexus.
24 class	p	Lower limb vessels. Regional lymph nodes.
25 class	p	Sacral plexus, long branches.
26 class Module 4 (date)	p	Module «Vessels and nerves of the extremities»
27 class	p	Final class

2 semester

Course Plan	Lecture / Practice	Subject
1 class	L	Introduction to Neurology. Spinal cord anatomy.
2 class	L	Functional anatomy of the brainstem.
3 class	L	Functional anatomy of the cerebellum and diencephalon.
4 class	L	The morphology of the cerebral hemispheres – sulci, gyri. Cortical analyzers. Basal nuclei.
5 class	L	Conductive pathways of the central nervous system.
6 class	L	Functional anatomy of the organ of vision.
7 class	L	Functional Anatomy of the Hearing and Balance Organs.
8 class	L	Skin and its derivatives. The organ of taste. Olfactory organ.
9 class	L	Motor cranial nerves - III, IV, VI, XI, XII. General characteristics. Cervical plexus.
10 class	L	Anatomy of the trigeminal nerve.
11 class	L	Mixed cranial nerves - VII, IX, X. General characteristics.
12 class	L	Introduction to Angiology. Heart.
13 class	L	Head and neck vessels.
14 class	L	The arterial system of the human body.
15 class	L	Venous system.
16 class	L	Vessels of the thorax and abdominal cavities.
17 class	L	Vessels of the pelvic cavity.
18 class	L	The lymphatic system.
19 class	L	Peripheral nervous system.
20 class	L	The autonomic nervous system.
21 class	L	Organs of the immune system.
22 class	L	Vessels of the upper limb. Regional lymph nodes.
23 class	L	Brachial plexus.
24 class	L	Lower limb vessels. Regional lymph nodes.
25 class	L	Sacral plexus, long branches.
26 class	L	History of anatomy.
27 class	L	Working off missed lectures.