

Federal State Autonomic Educational Institution of Higher Education
«Peoples' Friendship University of Russia»

Medical Institute

Recommended MCSD

DISCIPLINE PROGRAM

Discipline name

ANATOMY

Recommended for the direction of training (specialty)

31.05.01 General Medicine

Program (profile, specialization)

General medicine

1. Aims and objectives of discipline:

The aim to study anatomy is student's knowledge acquisition of the structure of the Human Body structure of organs and organ systems they topography and the development on the basis of modern achievements macro- and microscopic anatomy as well as formation of general professional medical competence in matters of structural organization of basic processes of living organism.

2. Place of discipline in the structure of OII BO:

Discipline Anatomy refers to the basic part of block 1 of the curriculum.

Table 1 shows the previous and subsequent disciplines aimed at the formation of discipline competencies in accordance with the competency matrix of OII BO

Table 1.

Preceding and following the discipline aimed at creating competencies

№ п/п	Code and title of competence	Preceding disciplines	Following disciplines
Universal competences			
	UC-1. Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy	Basic school subjects	History of medicine Economy Foreign language Russian as a foreign language Topographic anatomy and operative surgery Normal physiology Pharmacology Pathophysiology, clinical pathophysiology Epidemiology Physical culture Russian language and culture of speech The care of patients of therapeutic profile Care of patients of a surgical profile Assistant ward nurse Physician assistant
General Professional Competences			

	GPC-1. Being able to implement moral and legal norms, ethical and deontological principals in professional activity	Basic school subjects	Topographic anatomy and operative surgery Pathological anatomy, clinical pathological anatomy Pathophysiology, clinical pathophysiology Forensic medicine The sectional course
	GPC-5. Being able to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks	Basic school subjects	Histology Physiology Topographic Anatomy and Operative Surgery Pathological anatomy Pathophysiology Propedeutics of internal diseases General surgery Urology Traumatology and orthopedics Obstetrics and gynecology Neurology Otorhinolaryngology

3. Requirements for the results of mastering the discipline:

The process of studying the discipline is aimed at the formation of the following competencies:

Table 2.

Formed competencies

Competencies	Competency name	Competence achievement indicators
UC-1	Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy	UC-1.1. Analysing scientific and technical literature and regulatory documents of medical institutions
GPC-1	Being able to implement moral and legal norms, ethical and deontological principals in professional activity	GPC-1.1. Being able to abide by the ethical standards and legal regulations in professional activity
GPC-5	Being able to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks	GPC-5.3. Being able to determine morpho-functional, physiological states and pathological processes of the human body.

As a result of studying the discipline, the student must:

Know

- Basic law's development and functioning of the human body based on the structural organization of organs and organ systems
- Structure, function, topography and development of all organs and systems taking into account individual and age-specific
- The relationship of individual parts and organs in the human body
- Blood supply, lymphatic drainage and innervation of the way of organs
Anatomical terms in accordance with the International anatomical nomenclature

Be able to:

- Accurately and precisely determine the parts and areas of the human body
- Identify key bone formation, joint gap, the contours of the muscles and the projection of the body surface
- Accurately and precisely determine the location and projection bodies on the body surface and in relation to the skeleton
- Accurately and precisely determine the location of major blood vessels and nerves, space probing artery pulsations

Own:

- Medical and anatomical conceptual apparatus and skill to use it
- Experience with biological material and using a simple medical instrument (forceps, scalpel, a probe, etc.)
- Skills in using anatomical reference literature, as well as online resources on human anatomy

4. The scope of the discipline and types of educational work

General credit value of the discipline is 12 credit units.

Type of study work	Total hours	Semesters		
		I	II	III
Class hours (total)	306	102 (6: 2+4)	102 (6: 1+5)	102 (6: 2+4)
<i>Including:</i>	-	-	-	-
The lectures	102	34	17	34
Laboratory research (LR)	204	68	85	68
Independent work (total)	126	42	42	42
Total labor input hours	432	144	144	144
Credit Unit	12	4	4	4

5. Content of the discipline**5.1. The content of the discipline sections**

№ п/п	Name of the section of discipline	Contents of the section
		1.1. Introduction to anatomy
1	Somatology	1.2. Bones and joints of trunk 1.3. Bones and joints of the limbs 1.4. Bones and joints of the skull 1.5. Muscular system
2	Splanchnology	2.1. Digestive system 2.2. Respiratory system 2.3. Urinary system 2.4. Reproductive system 2.5. Endocrine glands

3	Cardiovascular and lymphoid systems	3.1. Circulatory system 3.2. Lymphoid system. Lymphatic drainage path
4	Nervous system and sense organs	4.1. Central nervous system 4.2. Cranial nerves 4.3. Spinal nerves and their derivatives 4.4. The autonomic nervous system
		4.5. Organs sensory

5.2. Sections of disciplines and types of classes

№	Name of section discipline and topics	Lectures	Laboratory studies	Total hours
1	Somatology	34	68	102
2	Splanchnology	8	42	50
3	Cardiovascular and lymphoid system	9	43	52
4	Nervous system and sense organs	34	68	102

6. Laboratory classes

№ п/п	Раздел дисциплины	Лабораторные занятия	Трудоемкость (час.)
1	Section - Somatology		68
1.1.		Introduction to anatomy	4
1.2.	Bones and joints of trunk	The structure of the vertebrae, sacrum and coccyx	2
		Vertebral column joints	2
		Chest skeleton	2
		Chest joints	2
		<i>Colloquium</i>	2
1.3.	Bones and joints of the limbs	Bones and joints of the upper limb girdle	2
		Free upper limb bones	2
		Upper limb joints	2
		Bones and joints of the lower limb girdle	2
		Free lower limb bones	2
		Lower limb joints	2
		<i>Colloquium</i>	2
1.4.	Bones and joints of the skull	Neurocranium (brain box)	4
		Viscerocranium (facial skeleton)	2
		Skull joints	2
		Cavities and fossae of the skull	4
		<i>Colloquium</i>	2

1.5.	Muscular system	The muscles of the spinal column. Chest muscles. Diaphragm Muscles of the walls of the abdomen; diaphragm of the pelvis Muscles of the trunk acting on the upper limb Muscles of the head Muscles and fascia of the neck Muscles of the shoulder girdle. Shoulder muscles Muscles of the forearm and hand Fascia and topography of the upper limb Muscles of the pelvic girdle and thigh Muscles of the lower leg and foot Fascia and topography of the lower limb <i>Colloquium</i>	2 2 2 2 2 2 2 2 2 2 2 2 2
Section - Splanchnology			42
2.1	Digestive system	Oral cavity Tongue. Teeth Fauces. Pharynx. Oesophagus. Stomach. Small and large intestine. Liver. Pancreas Peritoneum, the peritoneal cavity <i>Colloquium</i>	3 2 3 2 3 2 3 2
2.2	Respiratory system	The nasal cavity. Larynx Trachea. Bronchi. Lungs Chest cavity. Pleural cavity.	3 2 3
2.3.	Endocrine glands	Endocrine glands	2
2.4	Urinary system	Organs of the urinary system	3
2.5	Reproductive system	Organs of the female reproductive system Organs of the male reproductive system Perineum	2 3 2
		<i>Colloquium</i>	3
Section - Cardiovascular and Lymphoid Systems			43
3.1	Cardiovascular system	Heart. Pericardial cavity Vessels of the pulmonary circulation. Aortic arch and its branches External carotid artery and its branches Internal carotid artery and its branches Subclavian artery. Axillary artery Arteries of the free upper limb Thoracic and abdominal parts of the aorta Iliac arteries and their branches Arteries of the free lower limb Superior vena cava and its tributaries Inferior vena cava and its tributaries Portal vein of the liver, its tributaries and branches <i>Colloquium</i>	2 3 2 3 2 3 2 2 3 2 3 2 3 2

3.2	Lymphoid System and Lymph Outflow Pathways	Organs of the lymphoid system	3
		Lymphatic vessels and nodes of the lower half of the body. Lymphatic drainage from the abdominal and pelvic organs	2
		Lymphatic vessels and nodes of the upper half of the body. Lymphatic drainage from the respiratory system.	3
		<i>Colloquium</i>	2
Section-Nervous system and sensory organs			68
4.1.	Central nervous system	Spinal cord	2
		Parts of the brain. The meninges of the brain and its blood supply.	2
		Medulla	2
		Pons	2
		The bottom of the IV ventricle. Reticular formation	2
		Midbrain	2
		Cerebellum	2
		Diencephalon	2
		Cerebral hemispheres	2
		Basal part and basal nuclei of the telencephalon	2
		Sensory functional systems of the brain	2
		Motor functional system of the brain	2
		Limbic system	2
		<i>Colloquium</i>	
4.2.	Cranial nerves	Somatomotor cranial nerves	2
		Trigeminal nerve	2
		Facial nerve. Glossopharyngeal nerve	2
		Vagus and accessory nerves	2
		<i>Colloquium</i>	2
4.3.	Spinal nerves and somatic nerves plexus	Spinal nerves and their branches	2
		Cervical plexus	2
		Brachial plexus	2
		Lumbar plexus	2
		Sacral plexus	2
4.4.	Autonomous part of PNS	The sympathetic part of the ANS	2
		The parasympathetic part of the ANS	2
		Visceral plexuses and nodes	2
		Innervation of organs	2
		<i>Colloquium</i>	2
4.5.	Sense organs	Organ of vision	4
		Hearing organ and vestibular organ	2
		Organ of smell, organ of taste	2
		<i>Colloquium</i>	2

7. Lectures

№	Lecture topics	Hours
<i>I semester</i>		
1.	Introduction to Human Anatomy	2
2.	General anatomy of the skeletal system	2
3.	General anatomy of joints	2

4.	Development of the body	2
5.	Skeleton and trunk joints	2
6.	Skeleton and joints of the upper limb	2
7.	Skeleton and joints of the lower limb	2
8.	Development and structure of the skull	2
9.	Cavities and fossae of the skull	2
10.	General anatomy of the muscular system	2
11.	Muscles of the trunk	2
12.	Muscles of the trunk acting on the upper limb	2
13.	Muscles of the head and neck	2
14.	Muscles of the upper limb	2
15.	Lower limb muscles	2
16.	Biomechanic	2
17.	General consultation before the test	2
<i>II semester</i>		
1.	Introduction to Splanchnology	1
2.	Digestive system	1
3.	Digestive glands	1
4.	Peritoneum. Peritoneal cavity	1
5.	Upper respiratory tract. Larynx	1
6.	Lungs. Pleura	1
7.	Urinary organs	1
8.	Female reproductive system	1
9.	Male reproductive system	1
10.	Endocrine glands	1
11.	The cardiovascular system. Anatomy of the heart	1
12.	Aorta and main arteries	1
13.	Blood supply to the walls of the chest and abdominal cavities	1
14.	Blood supply to the organs of the head and neck	1
15.	The branches of the abdominal aorta and the blood supply to the abdominal-pelvic organs	1
16.	Venous outflow pathways	1
17.	Lymphoid system	1
<i>III semester</i>		
1.	General anatomy of the nervous system	2
2.	Spinal cord	2
3.	Medulla. Pons	2
4.	Midbrain. Cerebellum	2
5.	Diencephalon	2
6.	Telencephalon	2
7.	Sensory functional systems	2
8.	Motor functional system	2
9.	Development and composition of cranial nerves	2
10.	Branchiogenic group of cranial nerves	2

11.	Spinal nerves and their derivatives.	2
12.	Cervical plexus	2
13.	Brachial plexus;	2
14.	Lumbosacral plexus	2
15.	Autonomic nervous system	2
16.	Innervation of internal organs	2
17.	Sense organs	2

8. Material and technical support of the discipline

1. Skeleton, skull and sets of all bones in accordance with the topic of the laboratory exercise.
2. A set of radiographs of the skeletal system.
3. A set of anatomical material of joints and other joints: skull, spinal column, chest, pelvis, upper and lower extremities, as well as their anatomical material and tables.
4. A corpse with prepared muscles, anatomical material and moulage of the muscles of the trunk, head and neck, diaphragm, pelvic diaphragm; anatomical tables.
5. Corpse with opened body cavities.
6. Anatomical material, moulage and tables of the organs of the digestive system.
7. Anatomical material, moulage and tables of the organs of the digestive system.
8. Anatomical material, moulage and tables of the respiratory system.
9. Anatomical material, moulage and tables of urinary system organs.
10. Anatomical material, moulage and tables of organs of the male and female reproductive systems.
11. Anatomical material, moulage and tables of endocrine organs.
12. Corpse with dissected vessels and nerves.
13. Anatomical material, moulage and tables of the heart, arteries and veins of the head and neck, trunk, upper and lower extremities, individual organs.
14. Anatomical material, moulage and tables of the brain and spinal cord, peripheral nerves of the head and neck, trunk, upper and lower extremities, individual organs.
15. Anatomical material, moulage and tables of sensory organs: eyes, ear, taste and smell.
16. Collection of anatomical material (in the Anatomical Museum: 900 in total).
17. Anatomical table "Anatomage" for working with a virtual image of the human body.

9. Information support of the discipline:

a) Software:

- interactive educational and research technology "Anatomical table" with software "Anatomage»;
- interactive learning and research technology "Anatomic table" software "Artekса".

b) Databases, reference and search systems:

1. Electronic Library System (ELS) of the RUDN University and third-party ELS, to which university students have access on the basis of concluded contracts:

-Электронно-библиотечная система РУДН - ЭБС РУДН

<http://lib.rudn.ru/MegaPro/Web>

-ЭБС «Университетская библиотека онлайн» <http://www.biblioclub.ru>

-ЭБС Юрайт <http://www.biblio-online.ru>

-ЭБС «Консультант студента» www.studentlibrary.ru - ЭБС «Лань»

<http://e.lanbook.com/>

2. Databases and search engines:

- электронный фонд правовой и нормативно-технической документации

<http://docs.cntd.ru/>

-поисковая система Яндекс <https://www.yandex.ru/>

- поисковая система Google <https://www.google.ru/>
- реферативная база данных SCOPUS
<http://www.elsevierscience.ru/products/scopus/>
- документационный центр ВОЗ <http://whodc.mednet.ru/>
- электронная библиотека по хирургии <http://surgerylib.ru/>
- Анатомический портал: <http://anatomyportal.info/map.html>
- Анатомический портал для врачей и студентов: <http://anatomy-portal.info/>
- Анатомия: Лекции по анатомии человека. Сайт медицинской академии.
<http://med-akademia.ru/publ/lekcii/anatomija/12>
- Медицинская энциклопедия: анатомия человека <http://www.medical-enc.ru/1/anatomia.shtml>

10. Educational and methodical support of the discipline:

a) *Main literature:*

1. Human anatomy: the textbook in 2 v./ M.Prives, N.Lysenkov, V.Bushkovich. – M.,Mir Publishers, 1989.
2. Sapin M.R. Textbook of Human Anatomy: For Medical Students [Текст] : In 2 volumes. Volume 2 / M.R. Sapin, L.L. Kolesnikov, D.B. Nikitjuk; Edited by M.R.Sapin. - Книга на английском языке. - Moscow : New Wave Publishing Agency, 2018. - 479 p. : il. - ISBN 978-5-7864-0211-8 : 3608.46.
3. Sapin M.R. Textbook of Human Anatomy: For Medical Students [Текст] : In 2 volumes. Volume 1 / M.R. Sapin, L.L. Kolesnikov, D.B. Nikitjuk; Edited by M.R.Sapin. - Книга на английском языке. - Moscow : New Wave Publishing Agency, 2018. - 416 p. : il. - ISBN 978-5-7864-0210-1 : 3590.45.

b) Additional literature

1. Hansen J.T. Netter's Clinical Anatomy / J.T. Hansen, F.H. Netter. - 4th Edition ; Книга на английском языке. - Philadelphia : Elsevier, 2019. - 588 p. : il. - ISBN 978-0-323-53188-7 : 7642.32.
2. Textbook of Human Anatomy [Электронный ресурс] : In 3 vol. Vol. 1 : Locomotor apparatus / L.L. Kolesnikov [и др.]. - М. : ГЭОТАР-Медиа, 2018. - 288 p. - ISBN 978-5-9704-4038-4.
3. Drake R.L. Gray's Anatomy for Students / R.L. Drake, W.A. Vogl, Mitchell Adam W.M. - Third Edition ; Книга на английском языке. - Philadelphia : Elsevier, 2015. - 1161 p. : il. - ISBN 978-0-7020-5131-9 : 8197.77.
4. Netter F.H. Atlas of human anatomy [Текст] / F.H. Netter. - 6th ed. ; Книга на английском языке; International edition. - Philadelphia : Saunders : Elsevier, 2014. - 591 p. : il. - ISBN 978-1-4587-0418-7 : 5115.00.
5. Абрамова М.В. Практические навыки по анатомии человека, контролируемые во время рубежной аттестации студентов. Специальность "Лечебное дело" [Электронный ресурс] = Practical Skills in Human Anatomy Controlled at Rating Test Certification of Students. Speciality "Medical Treatment" : Учебно-методическое пособие / М.В. Абрамова, П.Г. Магомедова, Н.И. Волосок; Под ред. В.И. Козлова. - Электронные текстовые данные. - М. : Изд-во РУДН, 2013

11. Methodical instructions for students on mastering the discipline

In the classroom in a section hall, students consistently learn factual material on a corpse, the skeleton, individual anatomic material, special anatomical

material and other teaching aids. The main purpose of laboratory studies - studies of the structure of the human body parts and organs, as well as mastery of practical skills of location of organs and other anatomical structures in the human body. So visit labs and work on them with anatomical specimens and material is required.

The skipped classes have to be fulfilled.

Independent work of students at out-of-class o'clock can take place both in a section hall, and in the anatomical museum, where anatomic material and roentgenograms according to all sections of human anatomy are presented. Out-of-class independent work of the student includes:

- Study material for textbooks, teaching aids and anatomical atlas;
- Independent study of anatomical specimens in the anatomical museum;
- Work in the educational environment with the available databases on anatomy.

In the study of anatomy, special attention has to be paid to, that the knowledge acquired on anatomic material and abilities to learn to transfer to a body of the live person (future patient). For this purpose it is necessary to use in every possible way probing of own body, and also definition of a projection of bodies and various anatomic educations on a body surface.

Introduction to Human Anatomy.

The purpose of the study: mastering the basic requirements for the study of human anatomy; safety rules of working with biological material. Familiarization with the score-rating system assessment. Mastering the basic anatomical concepts and

terms. Acquiring knowledge on the structure of the total body cover.

To know: basic anatomic concepts and terms; parts and areas of the body structure and function of the total cover.

To be able to: to use basic anatomic concepts in describing the location and position of the body parts of the human body.

Topic 1.1. Bones and joints of trunk

The purposes of the study: the acquisition of in-depth knowledge of the structure of the skeleton and trunk joints.

Know: anatomical structure and development of the skeleton; the structure of individual bones, the functional purpose of bone formations (processes, tubercles, holes, grooves, etc.). Connection types; anatomical structure and development of the joints of the bones of the trunk.

To be able to find all bone formations on anatomical preparations, on the skeleton as a whole, as well as on a model. Basic bone connections; joint space projection; show the types of movements in the joints.

To seize skill of working with the organs of the skeletal system and joints, determining their location in the body; the application of anatomical terminology to describe the skeletal system and connections.

Topic 1.2. Bones and joints of the limbs

The purposes of the study: the acquisition of in-depth knowledge of the structure of bones and joints of the limbs.

Know the anatomical structure and development of the skeleton of the upper and lower extremities; the structure of individual bones, the functional purpose of bone formations, as well as the types of joints, the structure and functions of all major joints on the limbs.

To be able to find on anatomical preparations, on the skeleton as a whole, as well as on a model, all bone formations of the upper and lower extremities; the main types of bone joints; joint space projection; determine the types of movements in all joints of the limbs.

To seize skill of working with the bones and joints of the limbs, determining their location in the body; and the use of anatomical terminology to describe the skeleton and joints of the upper and lower extremities.

Topic 1.3. Bones and joints of the skull

The purposes of the study: the acquisition of deep knowledge on the structure of bones and skulls.

Know anatomy and development of the skull and its compounds; structure of individual bones,

functionality of bone formation (processes, bumps, holes, grooves, etc.)

To be able to find all the skull bone formation and compounds

To seize skill of work with the skull and bones of the skull location; application of anatomical terminology to describe the skeleton of the head.

Topic 1.4. Muscular System

The purposes of the study: the acquisition of deep knowledge on the structure of skeletal muscle.

Know the anatomy and development of the musculoskeletal system; structure and topography of individual muscles, their participation in movements; functioning of the slave machine muscles.

To be able to find the corpse or anatomical material functional muscle groups where they start and attachment; the projection on the surface of the body muscles. Determine the functional and topographical muscle groups in all parts of the body

To seize skill of definition of areas of a body and location of muscles in them; applications of anatomic terminology for the description of muscular system.

Topic 2.1. Digestive system

The purposes of the study: the acquisition of deep knowledge on the structure of the digestive system.

Know the anatomical structure and development of the digestive system; structure and topography of individual organs, their holotopy, skeletotopy and syntopy; functional purpose of organs.

To be able to find the corpse or anatomical material digestive organs, as well as details of their structure; the projection of the body surface.

To seize skill of work with organs of the digestive system and determining their location in the body; applications of anatomical terminology for the description of digestive system.

Topic 2.2. Respiratory system

The purposes of the study: the acquisition of deep knowledge on the structure of the respiratory system.

Know the anatomy and development of respiratory; structure and topography of individual organs their holotopy, skeletopy and syntopy; functionality of organs.

To be able to find the corpse or anatomical material all organs of the respiratory system, as well as details of their structure; the projection of the body surface.

To seize skill of work with anatomical specimens with respiratory, determining their location in the body; application of anatomical terminology for the description of respiratory system.

Topic 2.3. Urinary system

The purposes of the study: the acquisition of deep knowledge on the structure of the urinary system.

Know the anatomy and development of the urinary system; structure and topography of individual organs, their holotopy, skeletopy and syntopy; functionality of organs.

To be able to find the corpse or anatomical material urinary organs and reproductive systems and details of their structure; the projection of the body surface.

To seize skill of work with anatomical specimens of the urinary and reproductive systems; determining their location in the body; application of anatomical terminology for the description of urinary system.

Topic 2.4. Reproductive system

The purposes of the study: the acquisition of deep knowledge on the structure of the reproductive system.

Know the anatomy and development of the reproductive system; structure and topography of individual organs, their holotopy, skeletopy and syntopy; functionality of organs.

To be able to find the corpse or anatomical material reproductive organs and details of their structure; the projection of the body surface.

To seize skill of work with anatomical specimens of the reproductive system; determining their location in the body; application of anatomical terminology for the description of reproductive system.

Topic 2.5. Endocrine glands

The purposes of the study: the acquisition of deep knowledge on the structure of the endocrine glands.

Know the anatomy and development of the endocrine glands and their functions.

To be able to find the corpse or anatomical material endocrine glands; determine their projection on the surface of the body.

To seize skill of determination of their location in a body; applications of anatomic terminology for the description of these organs.

Topic 3.1. Circulatory System

The purposes of the study: the acquisition of deep knowledge on the structure of the cardiovascular system.

Know the anatomical structure and development of the cardiovascular system; structure and topography of the heart, aorta, regional, main and organ arteries and their main branches; areas of blood supply. Formation of the venous bed; the main tributaries of the superior and inferior vena cava, as well as the structure and functioning of the portal vein of the liver.

To be able to find the corpse or anatomical details of the structure material of the heart, progress and location of blood vessels; the projection of the body surface; places artery pulsation.

To seize skill of work with the heart and blood vessels to anatomical material, location of the arteries and veins in the body; application of anatomical terminology to describe them.

Topic 3.2. Lymphoid system and lymph drainage path

The purposes of the study: the acquisition of deep knowledge on the structure of outflow tract and lymph organs of the lymphoid system

Know anatomy and development of the lymphoid system; the topography of the major groups of lymph nodes; lymphatic drainage path.

To be able to find the corpse or anatomical material main groups of lymph nodes.

To seize skill of work with anatomical specimens of lymphoid organs, determining their location in the body, as well as ways of lymph; application of anatomical terminology to describe these bodies.

Topic 4.1. Central Nervous System

The purposes of the study: the acquisition of deep knowledge on the structure of the brain and spinal cord.

Know the anatomy and development of the brain and spinal cord; structure and topography of grey and white matter; functional significance of the nerve centers; neural structures of simple reflex arcs; structure and functions of the major pathways of the CNS.

To be able to finding on anatomic material and anatomical details of the structure material brain and spinal cord.

To seize skill of work with the nervous system and for determining their location within the body; use anatomical terminology to describe the bodies nervous system.

Topic 4.2. Cranial nerves

The purposes of the study: the acquisition of deep knowledge on the structure of the cranial nerves.

Know the anatomy and development of cranial nerves; their field of innervation.

To be able to find the corpse or anatomic material place for cranial nerves of the brain and the skull; the projection of the body surface.

To seize skill of work with the peripheral nervous system and determining their location within the body; application of anatomical terminology to describe the structural formations of the peripheral nervous system.

Topic 4.3. Spinal nerves; neural plexuses

The purposes of the study: the acquisition of deep knowledge on the structure of the peripheral nervous system.

Know the anatomy and development of the nerve trunk and extremities; innervation of the skin and muscles.

To be able to find the corpse or anatomical material plexuses and nerves of the trunk and limbs, their projection on the surface of the body.

To seize skill of work with the peripheral nervous system and determining their location in the body; application of anatomical terminology to describe the structural formations of the

peripheral nervous system.

Topic 4.4. The autonomic nervous system

The purposes of the study: the acquisition of deep knowledge on the structure of the autonomic nervous system and innervation of internal organs.

Know the anatomy and development of autonomous (vegetative) nervous system, the functional significance of its sympathetic and parasympathetic parts.

To be able to find the corpse or anatomical material localization nodes and visceral plexus autonomic nervous system; their projection on the surface of the body.

To seize skill of work with the autonomic nervous system and determining their location in the body; application of anatomical terminology to describe the structural formations of the autonomic nervous system.

Topic 4.5. Sense organs

The purposes of the study: the acquisition of deep knowledge on the structure of the sense organs.

Know the anatomy and development of the senses; nerve centres and pathways of the senses.

To be able to finding the corpse, anatomical material, anatomical material or structural details of the senses.

To seize skill of work with anatomical specimens of the senses; application of anatomical terminology to describe the senses.

12. Fund of assessment tools for intermediate certification of students in the discipline "Anatomy"

Materials for assessing the level of mastering the educational material of the discipline "Anatomy" (evaluation materials), including a list of competencies with an indication of the stages of their formation, a description of indicators and criteria for assessing competencies at various stages of their formation, a description of the assessment scales, typical control tasks or other materials, necessary for the assessment of knowledge, skills, skills and (or) experience of activity, characterizing the stages of the formation of competencies in the process of mastering the educational program, methodological materials defining the procedures for assessing knowledge, skills, skills and (or) experience of activities that characterize the stages of formation of competencies have been developed in full and are available for students on the discipline page at TUIS RUDN.

The program was drawn up in accordance with the requirements of the Federal State Educational Standard of Higher Education.

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