

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Human Anatomy

Academic year 2021-2022

SYLLABUS OF THE COURSE

"Human Anatomy"
(name of educational component)

Normative or selective educational component _____ normative

The format of the educational component _____ full-time _____
(full-time; mixed; remote)

Field of knowledge _____ 22 "Health care" _____
(code and name of the field of knowledge)

Specialty _____ 223 "Nursing" first (bachelor's) level _____
(code and name of the specialty)

Educational and professional program (educational and scientific program) _____ "Nursing" _

First course _

The syllabus of the educational component was considered at a meeting of the Department of Human Anatomy


Approved by the methodical commission of KhNMU on the problems natural science training

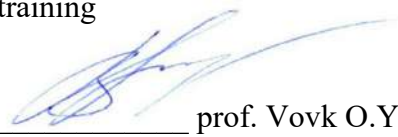
Protocol from
"30" August 2021 № 13

Protocol from
"31" August 2021 № 1

Head of Department

Chairman of the methodical commission of KhNMU on the on the problems natural science training


_____ prof. Vovk O.Yu. (signature)
(surname and initials)


_____ prof. Vovk O.Yu. (signature)
(surname and initials)

SILLABUS DEVELOPERS:

Head of the Human Anatomy Department, Doctor of Medicine, Professor O.Yu. Vovk,
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Assistant Professor of the Human Anatomy Department, O.M. Voynitska.

Data on the teacher who teaches the educational component

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Eye consultations: schedule and venue according to the schedule of the department.

Online consultations: schedule and venue by prior arrangement with the teacher.

Location: classes are held at: 12 Nezalezhnosti Avenue

INTRODUCTION

The syllabus of the educational component "Human Anatomy" is compiled in accordance with the Educational and Professional Program "Nursing" (hereinafter - EPP) and the Standard of Higher Education of Ukraine (hereinafter - the Standard), the first (bachelor's) level, areas of knowledge - 22 "Health", specialty 223 "Nursing".

Description of the educational component (abstract). The study of the educational component "Human Anatomy" for nurses is a classic model of university course adapted to the needs of medicine, which provides each education seeker with knowledge in the world of scientific ideas about the development, structure and function of the human body as a whole, the ability to use acquired knowledge basic sciences of medicine, and in the practical activities of a nurse.

The subject study of the educational component "human anatomy" is: the science of shape, structure, origin and development of organs, systems and the human body as a whole.

Interdisciplinary links:

Human anatomy as an educational component:

a) is based on the study of medical biology, histology, cytology and embryology, biophysics, Latin, ethics, philosophy, ecology and integrates with these educational components;

b) lays the foundations for the study of normal and pathological physiology, pathological anatomy, operative surgery and topographic anatomy, deontology, propaedeutics of clinical educational components and the formation of skills to apply knowledge of human anatomy in the further study of all clinical educational components and future professional activities.

Link to the educational component page in MOODLE

<http://31.128.79.157:8083/course/view.php?id=496>

1. PURPOSE AND TASKS OF STUDYING THE COURSE

1.1. The purpose of studying the educational component is the acquisition by each education seeker of knowledge of anatomy in the world of natural science ideas about the development, structure and function of the human body as a whole, the ability to use the acquired knowledge in further study of other basic sciences of medicine, and in practice.

The purpose of studying human anatomy - the ultimate goals are set on the basis of EPP training of a nurse in the specialty in accordance with the block of its content module (scientific training) and is the basis for building the content of the educational component. The description of goals is formulated through skills in the form of target tasks (actions). Based on the ultimate goals for each module or content module, specific goals are formulated in the form of certain skills (actions), target tasks that ensure the achievement of the ultimate goal of the educational component.

The ultimate goals of the educational component:

- *Analyze information about the structure of the human body, its constituent systems, organs and tissues;*
- *To determine the topographic and anatomical relationships of human organs and systems;*
- *Interpret the patterns of prenatal and early postnatal development of human organs, options for variability of organs, malformations;*
- *Interpret gender, age and individual features of the structure of the human body;*
- *To predict the interdependence and unity of structures and functions of human organs and their variability under the influence of environmental factors;*
- *To determine the influence of social conditions and labor on the development and structure of the human body;*
- *Demonstrate mastery morally-ethical principles of attitude to a living person and his body as an object of anatomical and clinical research.*

1.2. The main tasks of studying the educational component "Human anatomy" as a science is a systematic approach to the description of the shape, structure of organs, position (topography) of parts and organs of the body in unity with the functions performed, taking into account age, gender and individual characteristics.

1.3. Competences and learning outcomes, the formation of which is facilitated by the educational component (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the EPP and Standard).

1.3.1. The study of the educational component provides the acquisition of competencies by applicants:

- integral

- Ability to solve practical problems and tasks of activity in the field of health care with application of provisions, theories and methods of basic, medical and clinical sciences in the conditions of complexity and uncertainty.

-general:

- Ability to abstract thinking, analysis and synthesis
- Ability to apply knowledge in practical situations
- Knowledge and understanding of the subject area and understanding of professional activity
- Ability to make informed decisions

special (professional, subject):

- Ability to recognize and interpret signs of health and its changes, illness or disability (assessment / diagnosis), limitations of the possibility of full life and identify problems of patients with various diseases and conditions.
- Application of professional skills, medical means, interventions and actions to ensure the patient / client a dignified attitude, privacy (intimacy), confidentiality, protection of his rights, physical, psychological and spiritual needs on the basis of transcultural nursing, tolerant and irrational behavior.
- The ability to effectively apply a set of nursing skills, medical means, interventions and actions to provide care based on a holistic (holistic) approach, taking into account the patient's needs for comfort, nutrition, personal hygiene and the ability to meet their daily needs.
- Ability to effectively apply a set of professional skills (abilities), medical means, interventions and actions in assessing the functional status of patients / clients, preparing them for diagnostic tests and taking biological material for laboratory tests.
- Preservation of the specialist's own health during care, manipulations and procedures, when moving and transporting the patient / client.
- Preventive activities of the nurse, aimed at maintaining and promoting health, disease prevention and informing and educating the patient and his family members.
- The ability to detect the relationship of clinical manifestations of diseases with the results of additional research methods.
- Ability to organize and provide emergency care in various acute conditions.

1.3.2. The study of the educational component ensures the acquisition by applicants of the following program learning outcomes:

1. PLO 1. Conduct a nursing subjective and objective examination of various organs and systems of the patient and evaluate the obtained data.
2. PLO 8. To perform medical manipulations in order to ensure a sanitary and anti-epidemic regime.
3. PLO 12. Correctly perform medical manipulations in order to take measures to stabilize the functional state of the body.

1.3.3. The study of the educational component provides the acquisition of the following social skills (Soft skills):

- communication;
- literate written and oral language;
- ability to speak in public;

- analytical mind;
- ability to see and solve a problem;
- good memory;
- creativity;
- result orientation;
- persistence;
- stress resistance;
- willingness to perform routine work;
- ability to make decisions;
- responsibility.

2. INFORMATION SCOPE OF THE COURSE

2.1. Description of the educational component

Name of indicators	Field of knowledge, educational and qualification level	Characteristics of the educational component
		full-time education
Number of loans - 5.5	Branch of knowledge 22 - "health care"	Normative
the total number of hours - 165	Specialty: 223 - "Nursing"	Year of preparation:
		1
		Semester
		1/2
Hours for full-time study: classroom -90 (67%) independent education seeker work - 75 (33%)	Educational degree: first (bachelor's) level	Lectures
		32
	EPP: "Nursing"	Practical training
		58
		Individual work
		75
type of control		
Exam		

2.2.1. LECTURES

№	LECTURE TOPICS	To-th hours	Type of lectures
1.	Human anatomy - as a science. World, Ukrainian and Kharkiv anatomical schools. Functional osteology with features of childhood. The doctrine of the connection of bones. Functional arthrology.	2	Lecture-presentation
2.	Functional myology.	2	Lecture-presentation

3.	Functional anatomy of the digestive system. Peritoneum.	2	Lecture-presentation
4.	Functional anatomy of the respiratory system. Pleura. Mediastinum.	2	Lecture-presentation
5.	General anatomy of the endocrine and immune systems.	2	Lecture-presentation
6.	Functional anatomy of the cardiovascular system with the peculiarities of childhood. Fetal circulation. Functional anatomy of the lymphatic system.	2	Lecture-presentation
7.	General and functional anatomy of the urinary organs. General and functional anatomy of the male and female genital systems. Perineum.	2	Lecture-presentation
8.	The doctrine of the nervous system. Development of the nervous system. Functional anatomy of the spinal cord. Obolon.	2	Lecture-presentation
9.	Functional anatomy of the brain. Obolon.	2	Lecture-presentation
10.	Leading pathways of the brain and spinal cord.	2	Lecture-presentation
11.	Cranial nerves and anatomy of the senses	2	Lecture-presentation
12.	Anatomy of the autonomic nervous system with the peculiarities of childhood. Morpho-functional features of the structure, blood supply and innervation of human organs.	2	Lecture-presentation
13.	Vessels and nerves of the head and neck.	2	Lecture-presentation
14.	Vessels and nerves of the upper extremity	2	Lecture-presentation
15.	Vessels and nerves of the thoracic and abdominal cavities.	2	Lecture-presentation
16.	Vessels and nerves of the pelvis and lower extremities.	2	Lecture-presentation
Total		32	

2.2.2. SEMINAR CLASSES

Does not have

2.2.3. PRACTICAL CLASSES

№ 3 \ II	Name topics	Number of hours	Teaching methods	Forms of control
1.	Organization of the educational process at the Department of Human Anatomy. Subject and tasks of anatomy. Research methods in anatomy. Anatomical nomenclature. Axes and planes of the human body. Bone as an organ. Classification of bones. General characteristics of the spine, sacrum, coccyx. General signs of vertebrae. The spinal column as a whole. The structure of the ribs and sternum. Chest as a whole. Bones of the upper	4	Narrative-explanation, demonstration on anatomical preparations, presentation, use of corpse material; work at the virtual anatomical table Anatomage Table; work with the synthetic corpse SynDaver;	Oral questioning, written questioning, test control, creative tasks, individual tasks, abstracts, reports.

	extremity. Bones of the lower extremity. The pelvis as a whole		preparation for the licensed integrated exam KROK-1, solving situational problems, assessment of age, gender and individual characteristics of human organs.	
2.	Anatomy of skull bones. Eye socket, bony nasal cavity. Temporal, subtemporal, pterygopalatine fossa. Anterior, middle and posterior cranial fossae. External and internal bases of the skull. Age and sex features of the skull structure. Variants and anomalies of skull bone development.	4	- // - // -	- // - // -
3.	General arthrology. Connection of bones of a trunk. Connection of skull bones. Age features of connection of skull bones: temples, their types, structure, terms of ossification. Connection of bones of the upper extremity. Connection of bones of the lower extremity.	4	- // - // -	- // - // -
4.	Muscle as an organ. Muscle classification. Muscles and fascia of the back. Muscles and fascia of the chest. Diaphragm. Abdominal muscles and fascia. Topography of the abdomen. Inguinal canal.	4	- // - // -	- // - // -
5.	Muscles of the head and neck. Fascia and topography of the head and neck. Muscles of the upper and lower extremities. Fascia and topography of the upper and lower extremities. PZ №1	4	- // - // -	- // - // -
6.	Functional anatomy of the digestive system. Functional anatomy of the endocrine and immune systems.	4	- // - // -	- // - // -
7.	Functional anatomy of the respiratory system. Pleura. Mediastinum. Functional anatomy of the urinary system. Anatomy of the male genitalia. Anatomy of female genitalia. Perineum.	4	- // - // -	- // - // -
8.	Functional anatomy of the heart. Large and small circulatory system. Fetal circulation. Functional anatomy of the lymphatic system.	4	- // - // -	- // - // -
9.	Functional anatomy of the CNS. Anatomy of the spinal cord. General anatomy of the brain. Anatomy of the final brain. The relief of the cloak. Localization of functions in the cerebral cortex. Olfactory brain. Calloused body. Vault. Basal ganglia. Lateral ventricles. White matter of the cerebral hemispheres. Anatomy of the midbrain and diencephalon. Anatomy of the medulla oblongata and pons. Cerebellar anatomy. IV ventricle. Rhomboid fossa. Formation and ways	4	- // - // -	- // - // -

	of cerebrospinal fluid circulation. Leading pathways of the CNS (ascending: skin sensitivity and proprioceptive; descending: pyramidal and extrapyramidal).			
10.	The sense of smell. And a pair of cranial nerves. Anatomy of the eye. The leading path of the visual analyzer. II pair of cranial nerves. Auxiliary vision apparatus. III, IV and VI pairs of cranial nerves.	4	- // - // -	- // - // -
11.	V pair of cranial nerves. Anatomy of the ear. Leading ways of hearing and balance. VIII pair of cranial nerves. Anatomy of the taste organ. VII pair of cranial nerves. IX, X, XI and XII pairs of cranial nerves. Vegetative nodes of the head. Cervical plexus. Shoulder plexus.	4	Narrative-explanation, demonstration on anatomical preparations, presentation, use of corpse material; work at the virtual anatomical table Anatomage Table; work with the synthetic corpse SynDaver; preparation for the licensed integrated exam KROK-1, solving situational problems, assessment of age, gender and individual characteristics of human organs.	Oral questioning, written questioning, test control, creative tasks, individual tasks, abstracts, reports.
12.	Aorta. Branches of the aortic arch. Common and external carotid arteries. Subcutaneous veins of the neck. Internal carotid artery, internal jugular vein. Common facial vein. X pair of cranial nerves (head and neck). Vascular-nervous bundle of the neck. Cervical part of the sympathetic trunk. Subclavian and axillary arteries and veins. Brachial artery and vein. Arteries and veins of the forearm and hand. Subcutaneous veins of the upper extremity.	4	- // - // -	- // - // -
13.	Thoracic aorta. Upper vena cava. Odd and semi-odd veins. Intercostal nerves. X pair of cranial nerves (thoracic). Thoracic sympathetic trunk. Abdominal aorta. The inferior vena cava and portal vein. Intersystem venous anastomoses. Vegetative plexuses of the abdominal cavity. Lumbar plexus. Sacral and coccygeal plexus. Autonomic nerve plexuses of the pelvis.	4	- // - // -	- // - // -
14.	Common, external and internal iliac arteries and veins. Femoral and popliteal arteries and veins. Anatomy of the arteries and veins of the lower leg and foot. Subcutaneous veins of the lower extremity.	4	- // - // -	- // - // -
15.	Final lesson "Peripheral nervous and vascular systems.	2	- // - // -	- // - // -

Total:	58		
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2.2.4.LABORATORY CLASSES

Does not have

2.2.5. INDEPENDENT WORK

№	Topic	Number of hours	Teaching methods	Forms of control
1.	Describe the main stages of anatomy: history of anatomy development in ancient times; history of anatomy development in the Renaissance; history of development of Ukrainian anatomical schools up to the XX century; history of development of Ukrainian anatomical schools in the XX - XXI centuries.	2	Demonstration on anatomical preparations, presentation, use of corpse material; work with a virtual anatomical table Anatomage Table; work with the synthetic corpse SynDaver.	PC, software in accordance with KTP.
2.	Master the skill - apply planes and axes to describe anatomical objects.	2	- // - // -	- // - // -
3.	Master the basics of anthropometric description of the skull - describe the sexual and individual features of the structure of the skull; - describe the age features of the structure of the skull	2	- // - // -	- // - // -
4.	Master the skill -draw diagrams of bone connections.	2	- // - // -	- // - // -
5.	Master the skill - to demonstrate the structure of bones on drugs.	2	- // - // -	- // - // -
6.	Master the skill - to demonstrate on preparations connections between bones.	2	- // - // -	- // - // -
7.	Master the ability to demonstrate on - drugs: -muscles of the torso; -heads; -necks; -upper and lower extremities.	2	- // - // -	- // - // -
8.	Preparing a review of the scientific literature or conducting research (optional) Skull development in ontogenesis. Variants and anomalies of skull development.	2	- // - // -	- // - // -

	Development of bone joints in phylogeny and ontogenesis. Variants and anomalies of development of the upper and lower limbs. Variants and anomalies of skeletal muscle development.			
9.	Master the ability to demonstrate the structure of drugs: -organs of the digestive system; -organs of the respiratory system; -organs of the urinary system; -authorities of the female and male reproductive systems; -organs of the immune system; --organs of the endocrine system.	2	- // - // -	- // - // -
10.	Master the skill - draw the course of the peritoneum in the abdominal cavity and pelvic cavity.	2	- // - // -	- // - // -
11.	Master the basics of anthropometric description - external structure of the digestive, respiratory, urinary, genital systems.	2	- // - // -	- // - // -
12.	Master the skill - read radiographs of the digestive, respiratory, urinary, genital systems.	2	- // - // -	- // - // -
13.	Master the ability to demonstrate the structure of the heart, walls of the heart, chambers, blood vessels, leading pathways of the heart on drugs	2	- // - // -	- // - // -
14.	Master the skill -draw a diagram of simple and complex reflex arcs.	2		
15.	Master the skill - draw a diagram of the internal and external structure of the spinal cord and brain; - distinguish the structure of the gray matter of the spinal cord; - distinguish the structure of the white matter of the spinal cord.	2	- // - // -	- // - // -
16.	Master the skill -draw a diagram of the structure of the spinal nerve.	2	- // - // -	- // - // -
17.	Master the skill - draw a diagram of the structure of the derivatives of the rhomboid and midbrain; - diagram of the structure of gray and white matter of the medulla oblongata; - scheme of structure of gray and white matter of the bridge;	3	- // - // -	- // - // -

	- diagram of the structure of the gray matter of the cerebellum; - diagram of the structure of gray and white matter of the midbrain.			
18.	Master the ability to draw - withheme placement of cranial nerve nuclei in a diamond-shaped fossa.	3	- // - // -	- // - // -
19.	Master the ability to draw scheme - topography of the leading pathways of the inner capsule.	3	- // - // -	- // - // -
20.	Master the ability to draw a diagram: -ascending leading paths of the cortical direction; -ascending conductive pathways of the cerebellar direction.	3	- // - // -	- // - // -
21.	Master the ability to draw diagrams: - descending paths of pyramid systems; - descending paths of the extrapyramidal system.	3	- // - // -	- // - // -
22.	Master the ability to draw diagrams - interstitial spaces of the brain and spinal cord.	3	- // - // -	- // - // -
23.	Master the ability to draw a diagram: -conducting paths of the visual analyzer; -conducting pathways of hearing and balance.	3	- // - // -	- // - // -
24.	Master the skill: -demonstrate on drugs the external structure of the spinal cord and brain.	3	- // - // -	- // - // -
25.	Master the skill - to demonstrate the structure of the senses on drugs.	3	- // - // -	- // - // -
26.	Master the skill - draw a diagram of the general structure of cranial nerves derived from the brain.	2	- // - // -	- // - // -
27.	Master the skill - draw a diagram of the structure of mixed cranial nerves.	3	- // - // -	- // - // -
28.	Master the skill - draw diagrams of the structure of I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII pairs of cranial nerves.	2	- // - // -	- // - // -
29.	Master the skill - to show cranial nerves on drugs.	3	- // - // -	- // - // -
30.	Preparing a review of the scientific literature or conducting research (optional): - Options and anomalies in the development of the digestive system;	3	- // - // -	- // - // -

	<ul style="list-style-type: none"> - Options and anomalies in the development of the respiratory system; - Options and anomalies in the development of the urinary system; - Variants and anomalies of development of the male reproductive system; - Variants and anomalies of development of the female reproductive system; - Variants and anomalies of development of organs of immune and endocrine system; - Variants and anomalies of development of the spinal cord and its membranes; - Variants and anomalies of development of the brain and its membranes; - Variants and anomalies of visual organ development; - Variants and anomalies of hearing development; - Ways of outflow of lymph from abdominal organs; - The structure of the cranial nerves. 			
31.	Master the skill - to demonstrate on drugs peripheral blood vessels and nerves, to draw the scheme of nervous plexuses.	2	- // - // -	- // - // -
32.	Exam preparation	3	- // - // -	- // - // -
	Together	75		

3. EVALUATION CRITERIA

3.1. Evaluation of the success of education of education seekers is carried out on the basis of the current "Instructions for evaluating the educational activities of education seekers of KhNMU"

Evaluation of current learning activities (IPA)

When assessing the mastery of each subject of the educational component (PND) and the final lesson (PZ), the applicant is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

Final score for (IPA) and final lessons (SO) is defined as the arithmetic mean of traditional grades for each lesson and software, rounded to 2 decimal places and listed on a multi-point scale according to Tables 1.

Recalculation of the average score for the current control in a multi-point scale

4-point scale	120-point scale	4-point scale	120-point scale
5	120	3.91-3.94	94
4.95-4.99	119	3.87-3.9	93
4.91-4.94	118	3.83- 3.86	92
4.87-4.9	117	3.79- 3.82	91
4.83-4.86	116	3.74-3.78	90
4.79-4.82	115	3.7- 3.73	89
4.75-4.78	114	3.66- 3.69	88
4.7-4.74	113	3.62- 3.65	87
4.66-4.69	112	3.58-3.61	86
4.62-4.65	111	3.54- 3.57	85
4.58-4.61	110	3.49- 3.53	84
4.54-4.57	109	3.45-3.48	83
4.5-4.53	108	3.41-3.44	82
4.45-4.49	107	3.37-3.4	81
4.41-4.44	106	3.33- 3.36	80
4.37-4.4	105	3.29-3.32	79
4.33-4.36	104	3.25-3.28	78
4.29-4.32	103	3.21-3.24	77
4.25- 4.28	102	3.18-3.2	76
4.2- 4.24	101	3.15- 3.17	75
4.16- 4.19	100	3.13- 3.14	74
4.12- 4.15	99	3.1- 3.12	73
4.08- 4.11	98	3.07- 3.09	72
4.04- 4.07	97	3.04-3.06	71
3.99-4.03	96	3.0-3.03	70
3.95- 3.98	95	Less 3	Not enough

Assessment of independent education seeker work

The material for independent work of applicants, which is provided in the topic of practical training simultaneously with the classroom work, is evaluated during the current control.

Assessment of topics that are submitted only for independent work and are not included in the topics of classroom classes, are controlled during the final lesson.

Assessment of individual education seeker work

The list of individual tasks was approved at the meeting of the department (participation with reports in student conferences, profile Olympiads, preparation of analytical reviews with presentations with determination of the number of points for their performance, which can be added as incentives (not more than 10).

Points for individual tasks are awarded to the education seeker only once (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended. In no case may the total amount of points for IPA exceed 120 points.

Final lesson

Final lesson (*hereinafter - the software*) must be conducted in accordance with the working curriculum of the educational component during the semester on schedule, during classes.

Acceptance of software is carried out by the teacher of the academic group in the possible presence of the curator of the faculty.

The department provided the following materials for preparation for the software on the information stand:

- list of theoretical questions (including questions on independent work);
- list of practical skills;
- criteria for assessing the knowledge and skills of applicants;
- schedule of completion of missed classes by applicants during the semester.

Recommendations for the final lesson:

1. Solving a variant of tasks on the content of educational material (1 variant contains 10 questions);
2. Assessment of the development of practical skills (assessment criteria - "performed" or "failed").

When assessing the education seeker's knowledge of theoretical issues included in this final lesson (FL), the applicant is given a traditional grade, which is converted into a multi-point scale together with the grades for IPA (Table 1).

Exam

The exam in "Human Anatomy" is a process during which the acquired knowledge is tested for 2 semesters:

- level of theoretical knowledge;
- development of creative thinking;
- skills of independent work;
- competencies - the ability to synthesize the acquired knowledge and apply them in solving practical skills.

To conduct the exam, a session schedule is established, approved by the rector of KhNMU, indicating the specific dates of the exams, which are set aside outside the semester.

If the exam is not passed, the dates of rescheduling during the holidays are set, until the

beginning of the next semester.

Exam technology:

1. Assessment of the acquisition of practical skills and theoretical knowledge on all topics of the educational component is selectively conducted on the day of the exam on the exam ticket.

Criteria for assessing practical skills and theoretical knowledge (Tables 2, 3).

Table 2

Criteria for assessing practical skills

Number of skills	«5»	«4»	«3»	The answer to the tickets of the practical part	For each practical skill the education seeker receives from 5 to 8 points, which corresponds to: "5" - 8 points; "4" - 6.5 points; "3" - 5 points.
1	8	6.5	5		
2	8	6.5	5		
3	8	6.5	5		
4	8	6.5	5		
5	8	6.5	5		
	40	32.5	25		

Assessment of theoretical knowledge on the tickets drawn up at the department, which include questions on all topics of the educational component.

Table 3

Criteria for assessing theoretical knowledge

Number of questions	«5»	«4»	«3»	Oral answer for tickets, which include questions of the theoretical part of the educational component	For each answer the education seeker receives from 5 to 8 points, which corresponds to: "5" - 8 points; "4" - 6.5 points; "3" - 5 points.
1	8	6.5	5		
2	8	6.5	5		
3	8	6.5	5		
4	8	6.5	5		
5	8	6.5	5		
	40	32.5	25		

Exam - is conducted by examiners approved by the order of the rector of the university.

Admission to the exam is defined in points as the arithmetic mean of CEA points for 1-2 semesters, min - 70, max - 120 and in the absence of classroom absences and unsatisfactory grades. Classroom passes and assessments "unsatisfactory" are mandatory.

Exam estimated at 50 to 80 points.

Grade in the educational component - is the sum of points for the CEA and the exam from min - 120 to max - 200 and corresponds to the traditional assessment: "satisfactory", "good", "excellent".

The number of points obtained by the education seeker in the educational component is further

evaluated on a 200-point scale, ECTS ("A", "B", "C", "D", "E") and the traditional system "Satisfactory", "good", "excellent") (Table 4).

EDUCATIONAL COMPONENT EVALUATION

- Grade from the educational component

The educational component is studied for 2 semesters, the grade for the educational component is defined as the arithmetic mean of the points for 2 semesters, during which the educational component was studied, which are translated into a 120-point scale ECTS (table 1) with the addition of points obtained directly on the exam, the minimum number of points-50; maximum -80.

The maximum number of points that a education seeker can score for studying the educational component - 200 points, including the maximum number of points for current educational activities - 120 points, as well as the maximum number of points for the exam - 80 points. The minimum number of points is 120, including the minimum current educational activity - 70 and according to the results of the exam - 50 points.

- Grade in the educational component - is the sum of points for the CEA and the exam from min - 120 to max - 200 and corresponds to the traditional assessment: "satisfactory", "good", "excellent".
- The number of points obtained by the education seeker in the educational component is further evaluated on a 200-point scale, ECTS ("A", "B", "C", "D", "E") and the traditional system "Satisfactory", "good", "excellent") (Table 4).

Table 4

Correspondence of educational component assessment in points assessment in ECTS and traditional assessment

Evaluation of educational component in points	Assessment on the ECTS scale	Traditional assessment from the educational component
180–200	A	5
160–179	B	4
150–159	C	4
130–149	D	3
120–129	E	3

According to the number of points obtained, the statement of success of applicants in the educational component (form Y – 5.03Б) and the appendix with the personal account of applicants who did not meet the requirements of the curriculum of educational component (F, FX). The FX score is given to education seekers who have been admitted to the exam but have not passed it. A grade of F is given to education seekers who are not admitted to the exam.

3.2. List of THEORETICAL questions for the exam in specialty 223 - "Nursing"

1. Definition of the subject "Human Anatomy", its task. The concept of morphology. Methods of morphological research.
2. General characteristics of the human skeleton system. Axial and additional skeletons. The structure of bone as an organ, chemical composition, types of bones.
3. Bone connections, types. The structure of the joint, the auxiliary apparatus of the joint. Classification of joints, types of movements in the joints.
4. Skull, its parts and bones. Connection of skull bones. Age and sex features of the skull.
5. Spinal column, its departments. Features of the structure of the vertebrae. Connection of vertebrae. Spinal column in general, physiological curves of the spine, their formation and significance.
6. Chest skeleton. Connection of the bones of the thorax. Chest as a whole.
7. Bones and joints of the shoulder girdle. Bones and joints of the upper limb.
8. Bones and joints of the pelvic girdle. The pelvis as a whole. Gender differences of the pelvis. The main dimensions of the female pelvis.
9. Bones and joints of the lower extremity.
10. Skeletal muscles, their location, shape. The structure of the muscle as an organ. Auxiliary muscle apparatus.
11. Muscles of the head. Features of attachment of facial muscles. Chewing muscles.
12. Neck muscles. Classification, functions.
13. Muscles of the back, their functions.
14. Chest muscles, their functions. Diaphragm.
15. Abdominal muscles, their functions. White line of the abdomen. Inguinal canal.
16. Muscles of the upper extremity, their functions.
17. Muscles of the lower extremity, their functions.
18. The role of the nervous system in coordinating the functions of the body and its relationship with the environment. Classification of the nervous system.
19. Reflex as a form of nervous activity. Types of reflexes.
20. Reflex arc (simple, complex) and its links.
21. Spinal cord, its location, membranes, external structure. Cerebrospinal fluid.
22. The internal structure of the spinal cord. Segment, roots, white and gray matter. Functions of the spinal cord.
23. Cervical plexus, main branches and areas of innervation.
24. Shoulder plexus, main branches and areas of innervation. Thoracic nerves.

25. Lumbosacral plexus: lumbar and sacral plexus, main branches and areas of innervation.
26. Brain: general information, location, development, departments. The meninges of the brain and the spaces between them. Cerebrospinal fluid. Hematoencephalic barrier.
27. The medulla oblongata, its topography, structure, functions. Biological significance of the medulla oblongata.
28. Hindbrain, its location, structure, cavity, functions.
29. Midbrain: location, structure, cavity, functions.
30. The diencephalon, its location, structure, cavity, functions. The concept of reticular formation (reticular formation), features of structure, function.
31. The final brain, its location, structure, cavities. Calloused body. White matter.
32. Cranial nerves, number, functional types (motor, sensitive, mixed), areas of innervation.
33. General characteristics of the endocrine glands. The concept of hormones, their nature, properties and biological activity. Tissue hormones.
34. Thyroid gland. Thyroid glands. Topography, structure, hormones. Manifestations hypo- and hyperfunction.
35. Pituitary gland: anterior and posterior lobes, topography, structure, hormones, their significance. The pineal gland, its location, hormones, their importance. Manifestations hypo- and hyperfunction.
36. Adrenal glands; topography, structure, hormones.
37. Pancreatic islets, their location, structural features, hormones, their importance.
38. Structure and functional significance of the oral cavity. Salivary glands.
39. Pharynx, its location, parts, wall structure. Esophagus, its location, parts, narrowing.
40. Stomach: topography, shape, structure, parts. Functions stomach. Gastric glands.
41. Liver: topography, structure, functions. Liver lobe. Biliary tract.
42. Pancreas: topography, structure, functions.
43. Small intestine: location, departments, features of a wall structure.
44. Colon: location, departments, structural features.
45. Peritoneum. Peritoneal cavity. Placement of organs relative to the peritoneum. Ripple. Small cap. Big cap.
46. Airways: topography, structure, functions. The paranasal sinuses.
47. Lungs, topography, structure. Structural and functional unit - acinus.
48. Pleura: structure, leaves, pleural cavity, pleural sinuses. Mediastinum.
49. Primary and secondary lymphatic organs: red bone marrow, thoracic gland, spleen, pharyngeal lymph ring, local lymph nodes. The concept of hematopoiesis.
50. Large and small circulatory system. Fetal circulation.

51. Heart: topography, shape, structure. The boundaries of the heart. Core, core cavity. Blood supply to the heart.
52. Features of the structure of the heart muscle. Innervation of the heart.
53. Aorta, its departments. Arteries of the aortic arch.
54. Thoracic and abdominal parts of the aorta, their branches and areas of blood supply.
55. Arteries of the brain. Arterial circle of the brain.
56. Arteries of the upper extremity, their branches and areas of blood supply. Places of compression of arteries for a temporary stop of bleeding.
57. Arteries of the lower extremity, their branches and areas of blood supply. Veins of the great circle of blood circulation. Features of blood flow in the veins. Factors that contribute to the movement of blood through the veins.
58. The superior vena cava, the main branches and areas of blood flow.
59. The inferior vena cava, the main branches and areas of blood flow.
60. The portal vein, its significance. The value of connections (anastomoses) between the veins.
61. Kidneys: topography, shape, structure.
62. Structural and functional unit of the kidney.
63. Urinary tract. Female and male urethra.
64. Male genitals, structure, functions.
65. Female genitals, structure, functions.
66. Olfactory sensory system, departments, location, meaning (and a pair of cranial nerves). Taste sensor system. Types of taste sensations.
67. Eye and structures of formations. Eyeball, its location, structure. Additional eye structures.
68. Visual sensory system, departments, location, value. II pair of cranial nerves.
69. Ear: its location, structure, meaning.
70. Auditory sensory system, departments, placement. Conduction and perception of sound vibrations. Auditory sensations.
71. Vestibular sensory system, departments, location, value.

LIST OF PRACTICAL SKILLS FOR THE EXAM 223- "NURSING" - THE FIRST
(BACHELOR'S) LEVEL

<p>"Anatomy of the musculoskeletal system"</p> <p>Vertebra</p> <ul style="list-style-type: none"> - The body of the vertebra - Vertebral arch - Upper vertebral notch - Lower vertebral notch - Vertebral foramen - Spiny process - Transverse process - Upper articular process - Lower articular process <p>Cervical vertebrae</p> <ul style="list-style-type: none"> - The front arch of Atlanta - The pit of the tooth - Furrow of the vertebral artery "The back arc of Atlanta." - The lateral mass of the atlas - Axial vertebra tooth - Sleepy tubercle (VI cervical vertebra) - Transverse hole - Anterior hump - Rear hump - Furrow of the spinal nerve <p>Thoracic vertebrae</p> <ul style="list-style-type: none"> - Upper rib fossa - Lower rib fossa - Rib fossa of the transverse process <p>Lumbar vertebrae</p> <ul style="list-style-type: none"> - Additional appendix - Nipple-like process <p>Sacrum</p> <ul style="list-style-type: none"> - The base of the sacrum - Ear-shaped surface of the sacrum - The top of the sacrum - Mountainousness of the sacrum - Pelvic surface - Transverse lines - Anterior sacral openings - Dorsal surface <ul style="list-style-type: none"> - Posterior sacral openings - Middle sacral crest - Medial sacral ridge - Lateral sacrum crest - The sacral canal 	<ul style="list-style-type: none"> - Cruciate ligament <p>Edge</p> <ul style="list-style-type: none"> - Rib head - Articular surface of the rib head - The crest of the rib head - Neck ribs - The body of the rib - Bump ribs - Rib angle - Furrowed ribs - Bump of the anterior ladder muscle (on the first rib) - Furrow of the subclavian artery (on the first rib) - Furrow of the subclavian vein (on the first rib) - Hilness of the anterior dentary muscle <p>Sternum</p> <ul style="list-style-type: none"> - Stern handle - Jugular notch (sternum) - Key clipping - The body of the sternum - Rib cuts - Sword-shaped process - Angle of the sternum <p>Frontal bone</p> <ul style="list-style-type: none"> - Frontal scales <ul style="list-style-type: none"> - Frontal hump - Eyebrow arch - Overweight - Furrow of the upper arrow <p>sinus</p> <ul style="list-style-type: none"> - Frontal crest - Blind hole - Supraorbital edge - Supraorbital foramen - Chin appendage - Ocular fossa <ul style="list-style-type: none"> --The pit of the lacrimal gland - Nose <ul style="list-style-type: none"> - Nasal spine - Lattice cutting - Frontal sinus <p>Parietal bone</p> <ul style="list-style-type: none"> - Occipital edge - Scaly edge - Boom edge 	<ul style="list-style-type: none"> - Frontal edge - Frontal angle - Occipital angle - Wedge-shaped angle - Nipple angle - Parietal opening - Furrow of the upper arrow sinus - Parietal hump - Upper temporal line <p>Occipital bone</p> <ul style="list-style-type: none"> - Big hole - Main part - Pharyngeal tubercle - Slope -Side part - Occipital condyle - Outgrowth canal - Outgrowth fossa - Yoke notch - Jugular process --Sublingual nerve canal - Occipital scales - External occipital protrusion - Upper neck line - Lower neck line - Internal occipital protrusion - Cross-shaped increase - Furrow of the transverse sinus - Furrow of the sigmoid sinus - Furrow of the transverse sinus <p>Wedge-shaped bone</p> <ul style="list-style-type: none"> - The body of the wedge-shaped bone - Turkish saddle - Pituitary fossa --Bump saddle - Saddle back - Sleepy furrow - Wedge-shaped sinus - Small wing of a wedge-shaped bone - Large wing of a wedge-shaped bone - The cerebral surface of the great wing - Temporal surface of the large wing
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- Temporal surface of the large wing
- The maxillary surface of the large wing
- Orbital surface of the large wing
- The upper orbital fissure
- Visual canal
- Round hole
- Oval hole
- Spiny hole
- Pterygoid process
- Side plate
- Medium plate
- Wing-shaped channel
- Pterygoid fossa
- Wing-shaped notch
- Temporal
- Stony part of the temporal bone
- The upper edge of the rocky part
- Furrow of the upper stony sinus
- The back edge of the stony part
- Furrow of the lower stony sinus
- The leading edge of the stony part
- Furrow of the lower stony sinus
- The front surface of the stony part
- The roof of the tympanic cavity
- Triple indentation
- Solution of the canal of the great stony nerve
- Furrow of a large stony nerve
- Solution of the canal of the small stony nerve
- Furrow of a small stony nerve
- The back surface of the stony part
- Internal ear canal
- Internal auditory canal
- Arc fossa
- The lower surface of the stony part
- Jugular fossa
- Acute process
- Awl-mammary hole
- Rocky dimple
- External opening of the carotid canal
- Internal opening of the carotid canal
- Nipple (temporal bone)
- Furrow of the sigmoid sinus
- Nipple-shaped notch
- Nipple-shaped hole
- Drum part
- The scaly part
- Chin appendage
- Articular tubercle
- Mandibular fossa
- ` - External ear canal
- External auditory canal
- Lattice bone
- *Perforated plate*
- Hole holes
- Perpendicular plate
- Lattice maze
- Ocular fossa plate
- Upper nasal conch
- Middle nasal conch
- Maxilla
- The body of the upper jaw
- Orbital surface
- Suborbital sulcus of the upper jaw
- Suborbital canal of the upper jaw
- Suborbital margin of the body of the upper jaw
- Anterior surface of the upper jaw
- Suborbital foramen of the upper jaw
- Nasal notch
- Temporal surface of the body of the upper jaw
- The hump of the upper jaw
- Cell openings
- Nasal surface of the upper jaw
- Tear furrow
- Upper maxillary solution
- Frontal process of the upper jaw
- Chin process of the upper jaw
- The palatine process of the upper jaw
- Cell process
- Dental cells
- The body of the lower jaw
- Cell part
- Cellular arch of the lower jaw
- Dental cells
- The base of the lower jaw
- Chin protrusion of the lower jaw
- Chin tubercle
- Chin hole
- Double ventral fossa of the lower jaw
- Maxillofacial line of the lower jaw
- Sublingual fossa
- Submandibular fossa
- Branch of the lower jaw
- The angle of the lower jaw
- Chewing hilly
- Winged hilly
- Clipping of the lower jaw
- The condylar process of the mandible
- Head of the lower jaw
- The neck of the lower jaw
- Pterygoid fossa of the mandible
- Coronal process of the mandible
- Hole of the lower jaw
- Channel of the lower jaw
- Lower nasal concha**
- Tear bone
- Nasal**
- Ploughshare
- Palate
- Perpendicular plate
- Wedge-palatal notch
- Pyramidal process
- Horizontal plate
- Chin bone
- Side surface
- Temporal surface
- Orbital surface

- Frontal process
- Temporal process
- Chin-orbital foramen
- Chisel-frontal opening
- Chin-temporal opening
- Sublingual bone
- The body of the hyoid bone
- Small horn
- The Great Horn
- The vault of the skull
- Temporal fossa
- The walls of the temporal fossa
- Jaw arch
- Temporal fossa
- The walls of the temporal fossa
- Wing-palatine fossa
- Walls of the pterygopalatine fossa
- Anterior cranial fossa
- Middle cranial fossa
- Posterior cranial fossa
- Furrow of the upper arrow sinus (skull)
- Furrow of the transverse sinus (skull)
- Furrow of the sigmoid sinus (skull)
- The outer base of the skull
- Torn hole (skull)
- Jugular opening (skull)
- Carotid canal (skull)
- Musculoskeletal canal (skull)
- Bone palate
- Large palatal canal
- Small palatal openings
- Cutter channel
- Eye socket
- Orbital entrance
- Supraorbital edge (skull)
- Suborbital margin (skull)
- The walls of the orbit
- Front lattice hole
- Rear lattice hole
- Lower orbital fissure
- Bone nasal cavity
- The walls of the nasal bone cavity
- Hoani
- Upper nasal passage
- Middle nasal passage
- Lower nasal passage
- Joint nasal passage
- Shoulder
- Rib surface
- Subscapular fossa
- Rear surface
- The axis of the scapula
- Supra humeral process (acromion)
- Supraspinatus fossa
- Portal fossa
- The middle edge
- Side edge
- The upper edge
- Beak-like process
- Cutting the scapula
- Upper corner
- Lower corner
- Side angle
- Joint cavity
- Supraarticular tubercle
- Subarticular tubercle
- The neck of the shoulder blade
- Collarbone**
- Sternal end
- The body of the clavicle
- Over the shoulder end
- Humerus
- The head of the humerus
- Anatomical neck
- Big bump
- A small mound
- The crest of a large mound
- The crest of a small mound
- Hilly furrow
- Surgical neck
- The body of the humerus -
- Body surfaces
- Delta-shaped hilly
- Furrow of the radial nerve
- The condyle of the humerus
- The head of the humerus
- Block of the humerus
- Elbow fossa
- Coronary fossa
- Lateral appendix
- Beam pit
- Medium epiphysis
- Furrow of the ulnar nerve
- Radius
- The head of the radial bone
- Joint circumference
- Articular fossa
- The neck of the radial bone
- The body of the radial bone
- Hilly radial bone
- The surface of the body of the radial bone
- The edge of the body of the radial bone
- Acute process of the radial bone
- Cutting of the ulna
- Carpal joint surface
- Ulna
- Elbow process
- Block clipping
- Coronal process
- Hilness of the ulna
- Clipping of the radial bone
- The body of the ulna
- The surface of the body of the ulna
- The edges of the body of the ulna
- The head of the ulna
- Acute process of the ulna
- Joint circumference
- Bone bones
- Carpal bones
- Boat-shaped bone
- Crescent bone
- Triangular bone
- Pea-shaped bone
- Trapezoidal bone
- Trapezoidal bone
- Head bone
- The hook bone
- The metacarpal bones
- The base of the metacarpal bone
- The body of the metacarpal bone
- The head of the metacarpal bone
- Bones of the fingers of the hand (phalanges of the fingers)
- Proximal phalanx
- Middle phalanx
- The final phalanx

- Hip bone
 - Kulshova depression
 - The hole of the acetabulum
 - Crescent surface of the acetabulum
 - Cutting of the acetabulum
 - Covered hole
 - Large buttocks
- Ileal bone
 - The body of the iliac bone
 - *The wing of the iliac bone*
- Club crest
 - Upper anterior iliac spine
 - Lower anterior iliac spine
 - Lower posterior iliac spine
 - Upper posterior iliac spine
 - Outer lip
 - Intermediate line
 - Inner lip
 - Club pit
 - Buttock surface
 - Ear-shaped surface
 - Club hump
- Buttock
 - The body of the sciatic bone
 - Branch of the sciatic bone
 - Buttock hump
 - Buttock
 - Small buttocks
- Pubis**
 - The body of the pubic bone
 - The upper branch of the pubic bone
 - Pubic tubercle
 - Ileo-pubic increase
 - Symphysis surface
 - The lower branch of the pubic bone
 - Covered furrow
- Pelvis
 - Pelvic cavity
 - Large pelvis
 - Small pelvis
 - Boundary line
 - Pubic arch
 - The upper hole of the pelvis
 - The lower opening of the pelvis
- Thigh
 - The head of the femur
 - The neck of the femur
 - Small swivel of the femur
 - Large acetabulum of the femur
 - Intervertebral crest
 - Inter-swivel line
 - The body of the femur
 - Body surfaces
 - Rough line of the femur
 - Lateral lip
 - Medium lip
 - Comb line
 - Buttock hump
 - Knee surface
 - Medium condyle
 - The epiphysis of the femur
 - Lateral condyle
 - The epiphysis of the femur
 - Knee surface
 - Intergrowth fossa
- Patella
- Tibia
 - Lateral condyle
 - Tibial articular surface
 - Medium condyle
 - The upper articular surface
 - Front intergrowth field
 - Posterior intercostal field
 - Intergrowth increase
 - The body of the tibia
 - The surface of the body of the tibia
 - Hilness of the tibia
 - The edges of the tibia
 - The medial bone
 - Tibial tenderloin
 - Lower articular surface
- Splint bone
 - The head of the tibia
 - The body of the tibia
 - Lateral bone
- Foot bones
 - Mold bones
 - Heel bone
 - Head of the calcaneus
 - The neck of the calcaneus
 - The body of the calcaneus
 - Heel bone
 - Heel hump
 - Support of the calcaneus
- Boat-shaped bone
- Medium wedge-shaped bone
- Intermediate wedge-shaped bone
- Lateral wedge-shaped bone
- Cube-shaped bone
- Mold bones
- The base of the metatarsal bone
- The body of the metatarsal bone
- The head of the metatarsal bone
- Finger bones (Phalanges)
 - Proximal phalanx
 - Middle phalanx
 - The final phalanx
- Skull connection
 - Skull stitches
 - Crown seam of the skull
 - Skull suture
 - Lambdo-like seam of the skull
 - The skull cap
 - Synchondrosis of the skull
 - Temporomandibular joint
 - Atlanto-occipital joint
- Connection of the spine
 - Intervertebral disc
 - Fibrous ring intervertebral disc
 - Gem core intervertebral disc
 - Anterior longitudinal ligament (spine)
 - Posterior longitudinal ligament (spine)
 - Intercostal ligament (spine)
 - Yellow ligament (spine)
 - supraspinatus ligament (spine)
 - Transverse ligament (spine)
 - The arcuate joint
 - Middle atlanto-axial joint
 - Lateral atlanto-axial joint
 - sacrococcygeal joint
- Chest connection
 - Rib-sternal synchondrosis
 - Thoracic-rib joint
 - Joint of the head of the rib
 - Rib-transverse joint
- Connection of the upper limb
 - Supracoccygeal joint

- Thoracic-clavicular joint
- Interclavicular ligament
 - Rib-clavicular ligament
 - Front sternoclavicular ligament
 - Back sternoclavicular ligament
- Shoulder joint
- Lip of the articular cavity (shoulder joint)
 - Beak-shoulder ligament
- Elbow joint
- Shoulder-elbow joint
- Shoulder-radial joint
- Proximal radial-elbow joint
- Bypass elbow ligament
- Bypass beam connection
- Interosseous membrane of the forearm
- Distal radial-elbow joint
- Radial-carpal joint
- Posterior radial-carpal ligament
- Palmar radial-carpal ligament
- Elbow bypass ligament of the wrist
- Radial bypass ligament of the wrist
- Intercarpal joints
- Middle wrist joint
- Pea-shaped joint
- Wrist canal
- Carpometacarpal joints
- Intercarpal joints
- metacarpophalangeal joints
- Interphalangeal joints of the hand
- Bypass connections
- Connection of the lower extremity
 - Costal membrane
 - Covered channel
 - Large buttocks
 - Small buttocks
 - Pubic symphysis
 - sacroiliac joint
 - Hip joint
 - Lip of the acetabulum
 - Ligament of the femoral head
 - Ileo-femoral ligament
 - Butto-femoral ligament
- Pubic-femoral ligament
- Knee joint
 - The knee ligament
- Lateral meniscus
- Medial meniscus
- Anterior cruciate ligament
- Posterior cruciate ligament
- Bypass tibial ligament
- Bypass tibial ligament
- Knee ligament
- Interosseous membrane of the tibia
- The tibia
- Ankle joint
- Medium bypass connection
- Lateral bypass
- Ankle joint
- Heel-heel-boat joint
- Transverse joint mold
- Forked ligament
- Heel-cuboid joint
- Wedge-boat joint
- Inter-wedge joints
- Long sole ligament
- Mold-mold joints
- Interstitial joints
- Interosseous mold spaces
- Mold-phalangeal joints
- Interphalangeal joints of the foot
- Back muscles
 - Trapezius muscle
 - The widest muscle of the back
 - Large rhomboid muscle
 - Scapula lifting muscle
 - Lower posterior dentary muscle
 - Upper posterior dentary muscle
 - Muscle - a rectifier of the spine
- Chest muscles
 - Large pectoral muscle
 - Small pectoral muscle
 - Subclavian muscle
 - Anterior dentary muscle
 - Internal intercostal muscles
 - External intercostal muscles
- Diaphragm
 - Lumbar part of the diaphragm
 - Aortic solution
- Esophageal solution
- Sternal part of the diaphragm
- Rib part of the diaphragm
- Tendon center
- The opening of the vena cava
 - Thoracic-rib triangle
 - Lumbar-rib triangle
- Abdominal muscles
 - The rectus abdominis
 - *Tendon alterations*
 - The vagina of the rectus abdominis
 - External oblique muscle of the abdomen
 - Inguinal ligament
 - Internal oblique muscle of the abdomen
 - Transverse abdominal muscle
 - White line
 - Umbilical ring
 - Inguinal canal
 - Walls of the inguinal canal
 - Superficial inguinal ring
 - Medium leg
 - Side leg
 - Square lumbar muscle
- Facial muscles
 - Scranial muscle
 - Forehead abdomen
 - Occipital abdomen
 - Aponeurotic helmet (supracranial aponeurosis)
 - Circular muscle of the eye
 - Large chin muscle
 - Lifting muscle of the upper lip
 - Muscle-lifting angle of the mouth
 - Cheek muscle
 - The lowering muscle of the corner of the mouth
 - Lower lip lowering muscle
 - Circular muscle of the mouth
- Chewing muscles
 - Temporal muscle
 - Chewing muscle
 - Lateral pterygoid muscle
 - Medial pterygoid muscle
- Neck muscles
 - Subcutaneous muscle of the neck
 - sternocleidomastoid muscle

- Biceps muscle
 - Anterior abdomen
 - Hind abdomen
 - Awl sublingual muscle
 - Maxillofacial muscle
 - Pectoral-sublingual muscle
 - Scapular-sublingual muscle
 - Thoracic-thyroid muscle
 - Thyroid-sublingual muscle
 - Anterior ladder muscle
 - Middle ladder muscle
 - Posterior ladder muscle
 - Anterior cervical region
 - Submandibular triangle
 - Sleepy triangle
 - Scapular-tracheal triangle
 - Thoracic-clavicular-mammary area
 - Lateral cervical region
 - Scapular-clavicular triangle
 - Posterior cervical region
- Muscles of the upper extremity
- Deltoid muscle
 - The supraspinatus muscle
 - The metacarpal muscle
 - Small round muscle
 - Large round muscle
 - Subscapular muscle
 - Biceps muscle of the shoulder
 - Long head of the biceps brachii
 - Short head of the biceps brachii
 - Beak-shoulder muscle
 - Shoulder muscle
 - Triceps
 - Long head of the triceps
 - The medial head of the triceps
 - Lateral head of the triceps
 - Radial flexor muscle of the wrist
 - Round muscle-attractor
 - Elbow flexor wrist
 - Superficial flexor muscle of the fingers
 - Long palmar muscle
 - Long flexor muscle of the thumb
 - Deep flexor muscle of the fingers
 - Square muscle-attractor
- Shoulder-radius muscle
 - Long radial wrist extensor muscle
 - Short radial wrist extensor muscle
 - Finger extensor muscle
 - Finger extensor muscle
 - Elbow extensor wrist
 - Screwdriver muscle
 - Long abductor muscle of the thumb
 - Short extensor muscle of the thumb
 - Long extensor muscle of the thumb
 - Short abductor muscle of the thumb
 - Short flexor muscle of the thumb
 - Opposite muscle of the thumb
 - The driving muscle of the thumb
 - The abductor muscle of the little finger
 - Short flexor muscle of the little finger
 - Opposite muscle of the little finger
 - Worm-like muscles
 - Armpit fossa
 - The walls of the axilla
 - Quadrilateral hole
 - Triangular hole
 - Lateral two-headed furrow
 - Medium two-headed furrow
 - Elbow fossa
 - Holder of extensor muscles
 - Flexor muscle holder
 - Palmar aponeurosis
 - Wrist canal
- Muscles of the lower extremity
- Ileo-lumbar muscle
 - Large lumbar muscle
 - Club muscle
 - Large gluteal muscle
 - Middle gluteal muscle
 - Small gluteal muscle
 - Pear-shaped muscle
 - Internal occlusal muscle
 - Upper twin muscle
 - Lower twin muscle
- Square thigh muscle
 - External occlusal muscle
 - Tailor's muscle
 - Quadriceps femoris
 - Rectus femoris
 - Lateral broad muscle
 - Medium broad muscle
 - Intermediate broad muscle
 - Comb muscle
 - Thin muscle
 - Long drive muscle
 - Short drive muscle
 - Large adductor muscle
 - Biceps femoris
 - Long head
 - Short head
 - Semi-membranous muscle
 - Semi-tendon muscle
 - Long extensor muscle of the toes
 - Anterior tibialis muscle
 - Long extensor muscle of the big toe (foot)
 - Long tibialis muscle
 - Short tibialis muscle
 - Triceps calves
 - Calf muscle
 - Flounder muscle
 - Long flexor muscle of the toes (feet)
 - Posterior tibialis muscle
 - Long flexor muscle of the big toe (foot)
 - Short extensor muscle of the fingers
 - Short flexor muscle of the thumb
 - Square soleus muscle
 - Short flexor muscle of the fingers
 - Worm-like muscles
 - The abductor muscle of the thumb
 - Short flexor muscle of the thumb
 - The driving muscle of the thumb
 - The abductor muscle of the little finger
 - Short flexor muscle of the little finger

- Pear-shaped hole
- Pear-shaped hole
- Muscular Bay
- "Vascular Gulf."
- Wide fascia
- Club-leg strand
- Subcutaneous solution
- Sickle-shaped edge
- Perforated fascia
- Femoral canal
- Femoral ring
- Drive channel
- The walls of the drive channel
- Drive solution
- Knee fossa
- Upper extensor muscle holder
- Lower extensor muscle holder
-
- Flexor muscle holder
- Upper tibialis muscle holder
- Lower tibialis muscle holder
- Plantar aponeurosis
- "Splanchnology. Central nervous system and senses "
- Mouth
- Mouth*
- *Drooling of the mouth*
- Upper lip
- Lower lip
- Corner of the company
- Cheek
- Actually the oral cavity
- The palate
- Hard palate
- Soft palate
- Clear
- Teeth
- Tooth crown
- The neck of the tooth
- The root of the tooth
- Cutters
- Fang
- Small canines
- Large canines
- Language
- The body of the tongue
 - The root of the tongue
- The back of the tongue
- "By the tongue."
- The tip of the tongue
- The mucous membrane of the tongue
- Mushroom-shaped papillae of the tongue
- Grooved papillae of the tongue
- Leaf-shaped papillae of the tongue
- Blind hole of the tongue
- Tongue tonsil
- Oral glands
- Sublingual gland
- Submandibular gland
- Parotid gland
- Parotid duct
- Ziv
- Palate tongue
 - Palatine pharyngeal bracket
- The palatine tonsil
- Almond fossa
- Pharynx
- Nasal part of the pharynx
- The vault of the pharynx
- Pharyngeal tonsil
- Pharyngeal opening of the ear canal
- Pipe roll
- Oral part of the pharynx
- Laryngeal part of the pharynx
- Pharyngeal cavity
- The mucous membrane of the pharynx
- Muscles of the pharynx
- Esophagus
- The neck
- Chest
- Abdominal part
- Mucous membrane
- Stomach
- The anterior wall of the stomach
- The back wall of the stomach
- Great curvature of the stomach
- Small curvature of the stomach
- Cardiac opening
- Cardiac part of the stomach
- The bottom of the stomach
- Cardiac cutting
- The body of the stomach
- The portal part of the stomach
- Gate Cave
- Gateway channel
- Goalkeeper muscle-switch
- Gate opening
- The gastric mucosa
- Stomach folds
- Gastric fields
- Small intestine
- Serous membrane of the small intestine
- The mucous membrane of the small intestine
- Circular folds of the small intestine
- The duodenum
- The upper part of the duodenum
- Descending part of the duodenum
- Large papilla of the duodenum
- Small papilla of the duodenum
- The horizontal part of the duodenum
- Ascending part of the duodenum
- Duodenal flexion
- Empty intestine
- Ileum
- Colon
- The mucous membrane of the colon
- Crescent folds of the colon
- Protrusions of the colon
- Tapes of the colon
- Serous membrane of the colon
- Omental appendages of the colon
- The cecum
- Club hole
- Worm-shaped shoot
- Colon
- Ascending colon
- Right bend of the colon
- Transverse colon
- Left bend of the colon
- Descending colon
- Sigmoid colon
- Rectum

- Cross flexion
- Ampoule of the rectum
- Waste channel
- Waste columns
- Tracheal sinuses
- Retirement
- Liver
 - The right lobe of the liver
 - Left lobe of the liver
 - Aperture surface
 - The lower edge
 - Internal surface
 - Gallbladder fossa
 - Liver gate
 - Furrow of a vena cava
 - The gap of the venous ligament
 - Round ligament of the liver
 - Slit of the round ligament of the liver
 - Square share of the liver
 - The caudate lobe of the liver
 - Common hepatic duct
 - Right hepatic duct
 - Left hepatic duct
- Gallbladder
 - The bottom of the gallbladder
 - The body of the gallbladder
 - The neck of the gallbladder
 - Bladder duct
 - Common bile duct
- Pancreas
 - The head of the pancreas
 - The body of the pancreas
 - Body surfaces
 - The edges of the body
 - The tail of the pancreas
- Peritoneum
 - Mesentery of the small intestine
 - The root of the mesentery
 - Mesentery of the transverse colon
 - Mesentery of the appendix
 - Mesentery of the sigmoid colon
 - Big cap
 - Little cap
 - Liver ligaments
 - Coronal ligament
 - Sickle ligament
- Right triangular connection
- Left triangular ligament
- Omental bag
- Omental hole
- Liver bag
- Pancreatic sac
- Right mesenteric sinus
- Left mesenteric sinus
- Left side channel
- Right side channel
- Upper iliac-appendix
- Lower iliac-appendix
- Rectal-uterine cavity
- Bladder-uterine depth
- Rectal-bladder cavity
- Middle umbilical fold
- Medium umbilical fold
- Medial inguinal fossa
- Lateral umbilical fold
- Lateral inguinal fossa
- Nose
 - The root of the nose
 - Back of the nose
 - The tip of the nose
 - Wings of the nose
- Nasal cavity
 - Nostrils
 - Hoani
 - Nasal septum
 - Upper nasal conch
 - Middle nasal conch
 - Lower nasal conch
 - Nasal dorsum
 - Upper nasal passage
 - Middle nasal passage
 - Lower nasal passage
 - Joint nasal passage
 - The paranasal sinuses
 - Maxillary sinus
 - Wedge-shaped sinus
 - Frontal sinus
 - Lattice cells
 - Mucous membrane
 - Olfactory part
 - Respiratory part
- Larynx
 - Larynx (on the corpse)
 - Thyroid cartilage
 - The upper horn of the thyroid cartilage
- The lower horn of the thyroid cartilage
- Annular cartilage
- Arc of annular cartilage
- Plate of annular cartilage
- Ladle cartilage
- The basis of scoop cartilage
- Muscular process of scoop cartilage
- Vocal process of scoop cartilage
- The tip of the ladle cartilage
- Epiglottis
- Ring-thyroid joint
- Ring-scoop joint
- Thyroid-sublingual membrane
- The middle annular-thyroid ligament
- Ring-tracheal ligament
- The cavity of the larynx
- Entrance to the larynx
- Dorsion of the larynx
- Dorsal fold
- Parietal slit
- Loudspeaker
- Voice fold
- Ventricular larynx
- Voice gap
- Intercostal part of the glottis
- Intercartilaginous part of the glottis
- Consonant cavity
- Mucous membrane
- Elastic cone of the larynx
 - Voice communication
- Square plate
- Parietal ligament
- Muscles of the larynx
- Trachea**
 - The neck
 - Chest
 - Bifurcation of the trachea
 - Tracheal cartilage
 - Annular (tracheal) ligaments
 - Membrane wall
- Bronchi
 - Right main bronchus
 - Left main bronchus
 - Bronch tree
- Lungs
 - Right lung

- Left lung
- The basis of the lungs
- The top of the lung
- Rib surface and
- The spinal part of the rib surface of the lung
- Medial wall surface
- Aperture surface
- Interparticle surface
- The front edge of the lung
- The tongue of the left lung
- Heart incision of the left lung
- The tongue of the left lung
- The lower edge of the lung
- Lung gate
- The root of the lung
- Oblique slit of the lung
- Horizontal slit of the right lung
- Upper lobe of the lung (left, right)
- The middle lobe of the right lung
- Lower lobe of the lung (left, right)
- Pleura
- Nutroscheva (pulmonary) pleura
- Parietal pleura
- Pleural dome
- Rib part
- The mediastinal part
- Aperture part
- Pleural cavity
- Rib-diaphragm nook
- Rib-mediastinal nook
- Kidney
- Kidneys (right, left)
- Side edge
- The middle edge
- Kidney gate
- Renal sinus
- Front surface
- Rear surface
- Upper end (pole)
- Lower end (pole)
- Kidney fat capsule
- Fibrous capsule of the kidney
- Cortical substance of the kidney
- Brain substance of the kidney
- Kidney pyramids
- Renal papillae
- Kidney columns
- Kidney bowl
- Large renal calyx
- "A small kidney cup."
- Ureter (right, left)
- Abdominal part
- Pelvic part
- Intrawall part
- Bladder
- The top of the bubble
- The body of the bubble
- The bottom of the bubble
- The neck of the bladder
- The triangle of the bubble
- The ureter's eye
- The inner eye of the urethra
- Mucous membrane
- Testicle
- Medium surface
- Side surface
- Upper end (pole)
- Lower end (pole)
- The leading edge
- The back edge
- Protein shell
- The mediastinum of the testicle
- Testicular septa
- Testicular particles
- Testicular parenchyma
- Nadezhda
- The head of the nipple
- The body of the nipple
- The tail of the little girl
- Family rope
- Components
- The vas deferens
- Gate part
- Rope part
- Inguinal part
- Pelvic part
- Ampoule of the vas deferens
- Family blister
- Prostate
- The basis of the prostate gland
- The apex of the prostate
- Front surface
- Rear surface
- Share (right, left) of the prostate
- The isthmus of the prostate
- Penis
- The root of the penis
- The body of the penis
- The back of the penis
- The head of the penis
- Cavernous body of the penis
- Spongy body of the penis
- Male urethra
- The prostatic part
- Membrane (intermediate) part
- Spongy part
- The inner eye of the urethra
- The outer eye of the urethra
- Wicket
- Ovary**
- Free land
- The mesenteric edge
- Medium surface
- Side surface
- Pipe end
- Uterine end
- Protein shell
- Ovarian cortex
- The cerebral substance of the ovary
- Own ovarian ligament
- Uterus
- Front surface
- Rear surface
- The body of the uterus
- The bottom of the uterus
- Cervix
- Supravaginal part of the neck
- Vaginal part of the neck
- The uterine cavity
- The eye of the uterus
- Cervical canal
- Wide uterine ligament
- Round uterine ligament
- Uterine tube
- Uterine part
- Isthmus of the fallopian tube
- Ampoule of the fallopian tube
- Funnel of the fallopian tube
- Totors of the fallopian tube
- Uterine eye of the fallopian tube

- Abdominal opening of the fallopian tube
- Vagina
- Vault of the vagina
- The front wall of the vagina
- The back wall of the vagina
- External female genitals
- Pubic elevation
- Big shy lip
- Shameful slit
- Little shy lip
- Dorsum of the vagina
- Vaginal opening
- The clitoris
- Female urethra
- Perineum
- Buttock-vaginal fossa
- Bulb-spongy muscle
- Buttock-cavernous muscle
- Superficial transverse muscle of the perineum
- Deep transverse muscle of the perineum
- The external muscle is a circuit breaker
- Heart**
- The basis of the heart
- The top of the heart
- Thoracic-rib surface of the heart
- Diaphragmatic surface of the heart
- Pulmonary surface (right, left)
- Crown furrow
- Anterior interventricular sulcus
- Posterior interventricular sulcus
- Aorta (on the heart)
- Upper vena cava (on the heart)
- Lower vena cava (on the heart)
- Pulmonary trunk (on the heart)
- pulmonary artery (right, left)
- Right pulmonary veins (on the heart)
- Left pulmonary veins (heart)
- Right atrium
- "Right ear."
- Comb muscles

- The opening of the superior vena cava
- The opening of the inferior vena cava
- The opening of the coronary sinus
- Left atrium
- Left ear
- Comb muscles
- Open the pulmonary veins
- Atrial septum
- Oval hole
- Right ventricle
- Right atrioventricular foramen
- Right atrioventricular valve
- Front sash
- Rear sash
- Partition sash
- Arterial cone
- The opening of the pulmonary trunk
- Pulmonary trunk valve
- Right crescent valve
- Left crescent valve
- Front crescent valve
- Anterior mammary muscle
- Posterior papillary muscle
- Septal papillary muscle
- Tendon strings
- Meaty translations
- Left ventricle of the heart
- Left atrioventricular foramen
- Left atrioventricular valve
- Front sash
- Rear sash
- Dorsum of the aorta
- Aortic opening
- Aortic valve
- Right crescent valve
- Left crescent valve
- Rear crescent valve
- Aortic sinuses
- Anterior mammary muscle
- Posterior papillary muscle
- Tendon strings
- Meaty translations
- Ventricular septum
- Endocardium
- Myocardium
- Epicardium
- Pericardium (core)

- Absolute transverse sinus
- Absolutely slanted hair
- Right coronary artery of the heart**
- Posterior interventricular branch
- Left coronary artery of the heart
- Anterior interventricular branch
- Oiginal branch
- Coronary sinus
- Large cardiac vein
- Middle heart vein
- Small heart vein
- Thyroid gland
- "Part of it." thyroid gland
- Isthmus of the thyroid gland
- Adrenal gland (right, left)
- Pituitary
- Cone-shaped gland
- The bone marrow
- Thoracic gland (thymus)
- Spleen
- The gate of the spleen
- Palate tonsils
- Worm-shaped appendix
- Spinal cord**
- Cervical thickening
- Lumbosacral thickening
- Brain cone
- The final thread
- Anterior median slit
- Posterior medial sulcus
- Anterior furrow
- Posterior sulcus
- Ropes of the spinal cord
- The front rope
- Lateral rope
- Rear rope
- Central channel
- Gray matter
- Front horn
- Rear horn
- White matter
- Brain**
- Brain stem
- The medulla oblongata
- The bridge
- The midbrain
- The medulla oblongata

- Anterior median slit
- The pyramid of the medulla oblongata
- Crossroads of pyramids
- Anterior furrow
- Olive
- Posterior sulcus
- Wedge-shaped beam
- Wedge-shaped tubercle
- A thin beam
- Thin tubercle
- Posterior medial sulcus
- Lower cerebellar leg
- Bridge
- Main furrow
- Middle cerebellar leg
- Upper cerebellar leg
- Upper cerebral sail
- Bridge cover (cross section)
- The main part of the bridge
- The fourth ventricle
- Diamond-shaped hole
- **Middle furrow**
- Mediocre increase in the diamond-shaped fossa
- **Brain bands of the fourth ventricle**
- Triangle of the sublingual nerve
- **The triangle of the vagus nerve**
- Side corner
- Mediocre increase in the diamond-shaped fossa
- Facial tubercle
- Priskove field
- Cover the fourth ventricle
- Upper cerebral sail
 - Lower cerebral sail
- Midbrain
- The roof of the midbrain
- Roof plate
 - Upper tubercle
 - Lower tubercle
 - The handle of the upper tubercle
 - The handle of the lower tubercle
- Brain water supply
- Intervertebral fossa
- Rear penetrating substance

- The leg of the brain
- Coverage of the midbrain
 - Red core
 - Black matter
- The basis of the leg of the brain
- Cerebellum
- Hemisphere cerebellum
- Worm cerebellum
- Cracks of the cerebellum
- Leaves of the cerebellum
- A piece
- Tree of life
- Cerebellar cortex
- Toothed nucleus
- Lower cerebellar leg
- Middle cerebellar leg
- Upper cerebellar leg
- Diencephalon
- Thalamus
- Anterior tubercle of the thalamus
- Thalamus pillow
- Brain band of the thalamus
- Epithalamus
- Leash
- Lead triangle
- Pineal gland
- Metalamus
- Lateral cranked body
- Medium knee body
- Hypothalamus
- Visual intersection
- Visual path
- Gray hump
- Watering can
- Papillary body
- The third ventricle
- Walls
- Interventricular orifice
- The orifice of the aqueduct of the brain
- Hemisphere of the cerebrum
- Longitudinal slit of the cerebrum
- Lateral fossa of the cerebrum
- Frontal lobe
- Parietal lobe
- Temporal part
- Occipital lobe
- The island

- The upper surface of the brain
- Central furrow
 - Lateral furrow
 - Frontal lobe
 - Frontal pole
 - Precentral furrow
 - Precentral gyrus
 - Upper frontal sulcus
 - Lower frontal sulcus
 - Upper frontal gyrus
 - Middle frontal gyrus
 - Lower frontal gyrus
 - Ascending branch
 - Front branch
 - Tire part
 - Triangular part
 - Oculomotor part
 - Parietal lobe
 - Central furrow
 - Central gyrus
 - Upper parietal lobe
 - Intra parietal sulcus
 - Lower parietal lobe
 - Angular gyrus
 - Outer margin
 - Temporal part
 - Upper temporal sulcus
 - Lower temporal sulcus
 - Upper temporal gyrus
 - Middle temporal gyrus
 - Lower temporal gyrus
 - Transverse temporal gyri
 - Occipital lobe
 - Occipital pole
 - The island
 - The convolutions of the island
 - The medial and lower surfaces of the cerebral hemisphere
 - Furrow of the corpus callosum
 - Furrow belt
 - Belt gyrus
 - Isthmus of the lumbar gyrus
 - Seahorse furrow
 - Primorskokonikova convolution
 - Hook
 - Toothed gyrus olfactory furrow
 - Central furrow
 - Central lobe
 - Pre-wedge

- Parieto-occipital sulcus
- Wedge
- Ostrog furrow
- Tongue gyrus
- Bypass furrow
- Medium occipital-temporal gyrus
- Occipital-temporal sulcus
- Lateral occipital-temporal gyrus
- Straight gyrus
- Olfactory furrow
- Orbital furrows
- Orbital gyri
- Calloused body
- Beak
- Knee
- "The trunk."
- Roller
- Transparent partition
- Vaults
- Pillar
- Body
- Leg
- Olfactory bulb
- Olfactory path
- Olfactory triangle
- Anterior penetrating substance
- Basic cores
- Striped body
- Tail core
- Head
- Body
- Tail
- Lenticular nucleus
- Husk
- Side pale bullet
- Medium pale bullet
- Fence
- Lateral ventricles
- The central part of the lateral ventricle
 - The walls of the central part
- Anterior (frontal) horn of the lateral ventricle
- The walls of the front horn
- Posterior (occipital) horn of the lateral ventricle
- The walls of the rear horn
- A bird of a sharp lateral ventricle
- Bypass increase of a lateral ventricle
- Lower (Temporal) horn of the lateral ventricle
- The walls of the lower horn
 - Sea Horse
- Ventricular orifice
- The outer capsule of the final brain
- The inner capsule of the final brain
- The front leg of the inner capsule
- Knee of the inner capsule
- The back leg of the inner capsule
- Spinal cord
- Hard membrane of the brain
- Sickle of the cerebrum
- Sickle cerebellum
- Tent cerebellum
- Saddle diaphragm
- Sinuses of a hard cover
 - Upper boom sinus
 - Lower arrow sinus
 - Straight sinus
 - Occipital sinus
 - Transverse sinus
 - Drain sinuses
 - Sigmoid sinus
 - Cavernous sinus
 - Wedge-stone sinus
 - Upper stony sinus
 - Lower stony sinus
- The arachnoid membrane of the brain
- Spinal cord
- Soft meninges
- Spinal soft membrane
- Eyeball
- Fibrous membrane of the eyeball
- Protein of the eye
- Cornea
- The vascular membrane of the eyeball
- Actually the vascular membrane
- Military body
- Iris
- Pupil
- Retina
- Crystal
- Glassy body
- Additional eye structures
- External muscles of the eyeball
 - Lateral rectus muscle
 - Upper rectus muscle
 - Medium rectus muscle
 - Lateral rectus muscle
 - Upper oblique muscle
 - Lower oblique muscle
- Eyebrows
- Upper eyelid
- Lower eyelid
- Connective membrane (Conjunctiva)
- The upper arch of the connecting shell
- The lower arch of the connecting shell
- Tear gland
- Outer ear
- Ear shell
- Curl
- Anti-curl
- Goat
- Protikozele
- Ear lobe
- External auditory canal
- External ear canal
- The eardrum
- Middle ear
- Drum cavity
 - Roofing wall
 - Jugular wall
 - Labyrinth wall
- Nipple-shaped wall
- Sleepy wall
- Membrane wall
- Stirrup
- Anvil
- Hammer
- Hearing tube
- Inner ear
- Bone labyrinth
 - Prisinok
 - Semicircular channels
 - Curl
- Membrane labyrinth
- Cranial nerves***
- Optic nerve (second pair)

- Oculomotor nerve (III pair)
- Block nerve (IV pair)
- Trigeminal nerve (V pair) and its node
- Optic nerve (1 branch of the V pair)
- Maxillary nerve (2 branch V pair)
- Mandibular nerve (3 branch V pair)
- Ear-temporal nerve
- The lingual nerve
- Lower cellular nerve
- The abductor nerve (VI pair)
- Facial and intermediate nerves (VII pair)
- Parietal-curl nerve (VIII pair)
- Lingual-pharyngeal nerve (IX pair)
- Wandering nerve (X pair)
- Rotary laryngeal nerve
- Front and rear wandering trunks
- Additional nerve (XI pair)
- Sublingual nerve (XII pair)

List of practical skills for module 3 "Vessels and nerves of the head, neck, torso and limbs"

Aorta

- Bulb of the aorta
- Ascending aorta
- Aortic arch
- Branches of the aortic arch
- Descending aorta
- Thoracic aorta
- Abdominal aorta

Shoulder-head trunk

- Right common carotid artery
- Right subclavian artery
- Common carotid artery (right, left)
- External carotid artery
- Upper thyroid artery
- Lingual artery
- Facial artery
- Occipital artery
- Posterior auricular artery
- Ascending pharyngeal artery
- Superficial temporal artery

- Maxillary artery
- Lower cellular artery
- Middle carotid artery
- Internal carotid artery
- The neck
- The rocky part
- Cave part
- The brain part
- Ocular artery
- Anterior cerebral artery
- Posterior connecting artery
- Subclavian artery (right, left)
- Spinal artery
- The main artery
- Posterior cerebral artery
- Internal thoracic artery
- Shield-cervical trunk
- Lower thyroid artery
- Rib-neck trunk
- Transverse artery of the neck
- Arterial circle of the brain
- Internal jugular vein
- Facial vein
- Mandibular vein
- External jugular vein
- Anterior jugular vein
- Upper vena cava
- Shoulder-main vein (right, left)
- Thoracic duct
- Thoracic aorta
- Posterior intercostal arteries
- Abdominal aorta
- Lower diaphragmatic artery
- Lumbar arteries
- Abdominal trunk
- Left gastric artery
- Spleen artery
- Left gastroesophageal artery
- Common hepatic artery
- Gastro-duodenal artery
- Right gastroesophageal artery
- Upper pancreatic-duodenal artery
- Right gastric artery
- Own hepatic artery
- Upper mesenteric artery
- Lower pancreatic-duodenal artery
- Empty intestinal arteries
- Ileal arteries

- Ileo-colon artery
- Right colonic artery
- Middle colon artery
- Lower mesenteric artery
- Left colon artery
- Sigmoid artery
- Upper rectal artery
- Middle adrenal artery
- Renal artery
- Testicular (ovarian) artery
- Common iliac artery
- Internal iliac artery**
- Ilio-lumbar artery
- Upper sciatic artery
- Lower sciatic artery
- Coccygeal artery
- Umbilical artery
- Uterine artery
- Internal pubic artery
- Lower vesical artery
- Middle rectal artery
- Common iliac vein (right, left)
- The inferior vena cava
- Lumbar veins
- Testicular vein
- Renal vein
- Adrenal vein
- Internal iliac vein**
- Portal hepatic vein
- The superior mesenteric vein
- The inferior mesenteric vein
- Spleen vein
- Axillary artery
- Thoracolumbar artery
- Lateral thoracic artery
- Subscapular artery
- Thoracolumbar artery
- Oginal scapular artery
- Posterior oginal artery of the shoulder
- Anterior oginal artery of the shoulder
- Carotid artery
- Deep artery of the shoulder
- Upper ulnar bypass artery
- Lower ulnar bypass artery
- Radial artery
- Superficial palm branch
- Elbow artery**
- Common interosseous artery
- Superficial palmar arch

- Deep palmar arch
 - Common palmar finger arteries
 - Subclavian vein
 - Armpit vein
 - The main vein
 - Main vein
 - Shoulder veins
 - Elbow veins
 - Radiation veins
 - External iliac artery
 - Lower epigastric artery
 - Femoral artery
 - Superficial epigastric artery
 - Deep femoral artery
 - Middle medial femoral artery
 - Lateral oginal artery of the thigh
 - Descending knee artery
 - The upper trunk
 - The middle trunk
 - The lower trunk
 - Supraclavicular part
 - Long pectoral nerve
 - Subclavian nerve
 - Suprascapular nerve
 - Thoracolumbar nerve
 - The median thoracic nerve
 - Lateral thoracic nerve
 - Subclavian part
 - Side beam
- Knee artery
 - Lateral superior knee artery
 - Medial superior knee artery
 - Lateral inferior knee artery
 - Middle median inferior artery
 - Middle knee artery
 - Anterior tibial artery**
 - Posterior artery of the foot
 - Arcuate artery
 - Posterior tibial artery
 - Tibial artery
 - Lateral plantar artery
 - The medial plantar artery
 - External iliac vein**
 - Femoral vein
 - Large subcutaneous vein
 - Deep femoral vein
 - Knee vein
 - Small subcutaneous vein
 - Medium beam
 - Rear beam
 - Musculoskeletal nerve
 - The median nerve
 - Elbow nerve
 - Radial nerve
 - The axillary nerve
 - Median cutaneous nerve of the shoulder
 - The median cutaneous nerve of the forearm
 - Intercostal nerves
- Anterior tibial veins
 - Posterior tibial veins
 - Cute trunk**
 - Knots of a nice trunk
 - Internodal branches of the sympathetic trunk
 - Large visceral nerve
 - Small visceral nerve
 - Abdominal plexus and nodes
 - Spinal nerves**
 - Cervical plexus
 - Neck loop
 - Small occipital nerve
 - Large auricular nerve
 - Cervical transverse nerve
 - Diaphragmatic nerve
 - Shoulder plexus
 - "Trunks."
 - Lumbar plexus
 - Ileo-abdominal nerve
 - Ileo-inguinal nerve
 - Genitourinary nerve
 - Lateral cutaneous nerve of the thigh
 - The occlusal nerve
 - Femoral nerve
 - The sacral plexus

3.3. Test tasks for independent work

Topics of abstracts

Topic 1. Andreas Vesalius and the beginning of scientific anatomy

Topic 2. Leonardo da Vinci - one of the founders of plastic anatomy

Topic 3. Stages of embryogenesis. Embryonic leaves - the development of tissues and organs.

1. Development of the human embryo

2. Histogenesis

3. Organogenesis

Topic 4. Physiological curves of the spine

1. The structure of the spine and curvatures of the spine in a child

Topic 5 Determining the type of posture depending on the severity of the curves of the spine

1. Types of posture with increasing and decreasing curvature of the spine

Topic 6.

1. The structure of the bone
2. Age features of the periosteum

Topic 7. Study of the features of skeletal bones in the age aspect.

1. Features of skeletal bones in children, adults and the elderly

Topic 8. Structures that strengthen the joint and limit its movements

1. Auxiliary apparatus of the joint
2. The purpose of the joint ligament

Topic 9. Blood supply and innervation of torso muscles

1. Blood supply to the muscles of the torso
2. Innervation of the muscles of the torso

Topic 10. Muscles are antagonists and muscles are synergists

1. M- antagonists
2. M- synergists

Topic 11. Abdominal press and its functional significance.

1. The diaphragm of the human body
2. The walls of the abdominal press
3. Functional purpose of the abdominal press

Topic 12. The structure of the teeth

1. Features of deciduous teeth and the time of their development
2. The formula of permanent teeth.
3. Features of incisors, canines, molars. The turn of their appearance.
4. Prevention

Topic 13. Spleen, its location, external and internal structure.

1. The structure and function of the spleen
2. The role of the spleen in blood circulation

Topic 14. Meninges of the spinal cord and brain

1. Meningeal membrane
2. Cobweb
3. The vascular membrane
4. Intercostal spaces

Topic 15. Pituitary

1. Adenohypophysis
2. Neurohypophysis

3.4. Individual tasks

Individual teaching and research (ERWA) or research (SRWA) work of applicants (optional) involves:

- preparation of a review of scientific literature (abstract);
- preparation of illustrative material on these topics (multimedia presentation, set of tables, diagrams, figures, etc.);
- production of educational and museum preparations, models;

3.5. Other incentives

- conducting research within the education seeker research group of the department;
- participation in scientific topics of the department;
- participation in anatomical olympiads, etc.

3.6. Rules for appealing the assessment

The appeal is assessed in accordance with the provision "On the appeal of the results of the final control of education seekers of the Kharkiv National Medical University", the order of 30.09.2020. №252.

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=1226%3A2013-03-25-12-07-55&catid=4%3A2011-05-04-07-20-12&Itemid=19&lang=uk

1. EDUCATIONAL COMPONENT POLICY

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes according to the subject; not to be late and not to miss classes; perform all necessary tasks and work in each lesson; be able to work with a partner or in a group; contact the curators of the course on various issues on the subject of classes and receive it when you need it.

Applicants can discuss different tasks, but their performance is strictly individual. It is not allowed to write off, use various software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the educational process. Applicants are not allowed to be late for practical classes.

Visiting patients during treatment in the hospital is possible provided that the applicants have the appropriate form of clothing, a health book with a mark on diphtheria vaccination, the results of the examination for strain of immunity to measles (or mark on vaccination), or other infectious diseases according to the current epidemic situation.

Applicants with special needs can meet with the teacher or warn him before the start of classes, at the request of the education seeker it can be done by the head of the group. If you have any questions, please contact the teacher.

Applicants are encouraged to participate in research and conferences on this topic.

All KNMU applicants are protected by the Regulations on the Prevention, Prevention and Settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University, designed to define an effective mechanism for resolving conflict situations related to discrimination and sexual harassment. This Regulation is developed on the basis of the following normative legal acts of Ukraine: the Constitution of Ukraine; Law of Ukraine "On Education"; Law of Ukraine "On Higher Education"; Law of Ukraine "On Principles of Preventing and Combating Discrimination in Ukraine"; Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men"; Convention for the Protection of Human Rights and Fundamental Freedoms; Convention for the Suppression of Discrimination in Education; Convention on the Elimination of All Forms of Discrimination against Women; General Recommendation № 25 to Article 4, paragraph 1, of the Convention on the Elimination of All Forms of Discrimination against Women; General Comment № 16 (2005) "Equal rights for men and women to enjoy economic, social and cultural rights" (Article 3 of the International Covenant on Economic, Social and Cultural Rights; UN Committee on Economic, Social and Cultural Rights); in the spirit of international mutual understanding, cooperation and peace and education in the spirit of respect for human rights and fundamental freedoms (UNESCO), the Concept of the State Social Program for Equal Rights and Opportunities for Women and Men until 2021. Kharkiv National Medical University provides education and work that is free from discrimination, sexual harassment, intimidation or exploitation. The University recognizes the importance of confidentiality. All persons responsible for the implementation of this policy (staff of deans' offices, faculties, institutes and the Center for Gender Education, members of the student government and ethics committee, vice-rector for research and teaching) are confidential about those who report or accuse of discrimination. or sexual harassment (except where the law requires disclosure and / or when disclosure by the University is necessary to protect the safety of others).

KhNMU creates a space of equal opportunities, free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities granted to education seekers or staff of the University apply to all without exception, provided they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KhNMU are confirmed by the Code of Corporate Ethics and the Charter of KhNMU.

4. ACADEMIC INTEGRITY

The Department of Human Anatomy maintains zero tolerance for plagiarism. Applicants are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

5. RECOMMENDED BOOKS

Basic:

1. Human anatomy in three volumes / AS Golovatsky, VG Cherkasov, MR Sapin, JI Fedonyuk. - Vinnytsia: New book, 2006-2017.
2. Anatomy of a child (with the basics of embryology and developmental defects): educational and methodical manual for applicants for higher medical (pharmaceutical) educational institutions / II Bobryk, VS Shkolnikov, SD Maksymenko, YY Guminsky. - Luhansk: Virtual Reality, 2012.
3. Human anatomy: in 3 volumes / ed. VG Koveshnikov.- Lugansk: Publishing House "Shiko" LLC "Virtual Reality", 2005.
4. Human anatomy: textbook. way. for students. higher honey. textbook institutions of the IV level of accreditation / VG Cherkasov, S. Yu. Kravchuk; Nat. honey. Univ. O.O. Bogomolets, Bukovynian state. honey. un-t. - Vinnytsia: New book, 2011.
5. Sinelnikov RD Atlas of human anatomy: textbook. allowance in 4 volumes / R.D. Sinelnikov, Ya.R. Sinelnikov.- M .: Medicine, 2004.
6. Saturday. Atlas of human anatomy. In two volumes. Processing and editing of the Ukrainian edition: VG Cherkasov., Lane. OI Kovalchuk. - Kyiv
7. Netter F. Atlas of human anatomy / F. Netter; for order. Yu.B. Tchaikovsky; пер.з англ. А.А. Brick. - Lviv: Nautilus, 2004. - 592p.
8. International anatomical terminology (Latin, Ukrainian, Russian and English equivalents) / VG Cherkasov, II Bobryk, YY Guminsky, OI Kovalchuk. - Vinnytsia: NovaKnyha, 2010. - 392p.
9. Human anatomy. In two parts. / Ed. KA Dubenko. - K: CJSC "Atlant-UMS", 2004. 689 p.

Supporting literature:

1. Atlas of human anatomy. Publisher: Ripol-Classic. 2012. - 576 p.
2. Atlas of Regional Anatomy of the Brain Using MRI: With Functional Correlations / JC Tamraz, YG Comair. - [C. l.]: Springer, 2000. - 328 p.
3. McCraw and Arnold's Atlas of Muscle and Musculocutaneous Flaps / JB McCraw, Ph. Mr. Arnold. - [C. l.]: Lippincott Williams & Wilkins, 1986. - 735 p.
4. Clinical Anatomy / Ellis Harold. - 11th ed. - [C. l.]: Blackwell Publishing Limited, 2006. - 439 p.
5. The Human Body: An Introduction to Structure and Function / Adolf Faller, Michael Schuenke, Gabriele Schunke. - [C. l.]: Thieme, 2004. - 708 p.
6. Grant's Atlas of Anatomy / ed .: AMR Agur, AF Dalley. - 12th ed. - [C. l.]: Lippincott Williams & Wilkins, 2009. - 1627 p.

7. Bones and Muscles: An Illustrated Anatomy / Virginia Cantarella. - [C. 1.]: Wolf Fly Press, 1999. - 190 p
8. Neuroanatomy (MRI and CT) / DE Haines. - 6 ed. - [C. 1.]: Lippincott Williams & Wilkins, 2000. - 300 p.
9. Color Atlas of Human Anatomy: textbook. Vol. 1. Locomotor System / W. Kahle, H. Leonhardt, W. Platzer. - 3-rd revised ed. - New York: Thieme, 1986. - 226 p.
10. Color Atlas of Human Anatomy: textbook. Vol. 3. Nervous System and Sensory Organs / W. Kahle, H. Leonhardt, W. Platzer. - 3-rd revised ed. - New York: Thieme, 1986. - 374 p.
11. Color Atlas of Human Anatomy: textbook. Vol. 2. Internal Organs / H. Leonhardt. - 3-rd revised. - New York: Thieme, 1998. - 361 p.
12. Anatomy at a Glance: atlas / O. Faiz, D. Moffat. - Oxford: Blackwell Science, 2002. - 177 p.
13. Gray's Anatomy: The Anatomical Basis of Clinical Practice: учебник / ed. S. Standring. - [C. 1.]: Elsevier Inc., 2008. - 2504 p.
14. Human Anatomy: textbook. allowance / K. Saladin. - Boston: McGraw-Hill, 2004.- 802 p.
15. Pocket atlas of human anatomy based on the International nomenclature: atlas / H. Feneis, W. Dauber. - 4th ed. - - Stuttgart; NY: Thieme, 2000. - 509 p.

6. INFORMATION RESOURCES

<http://31.128.79.157:8083/course/view.php?id=496>

