

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

**BANK OF ASSESSMENT TOOLS FOR DISCIPLINE
HUMAN ANATOMY OF ORGANS AND SYSTEMS**

Training program (specialty): **33.05.01 PHARMACY** _____
code, name

Department: **HUMAN ANATOMY** _____

Mode of study **FULL-TIME** _____
(full-time/mixed attendance mode/extramural)

Nizhniy Novgorod
2021

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline

This Bank of Assessment Tools (BAT) for the discipline "HUMAN ANATOMY OF ORGANS AND SYSTEMS (Elective Course)" is an integral appendix to the working program of the discipline "HUMAN ANATOMY OF ORGANS AND SYSTEMS". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

(Banks of assessment tools allow us to evaluate the achievement of the planned results stated in the educational program.

Assessment tools are a bank of control tasks, as well as a description of forms and procedures designed to determine the quality of mastering study material by students.)

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline "HUMAN ANATOMY OF ORGANS AND SYSTEMS":

No	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test №1	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student. A student has to choose one or more answers.	Bank of test tasks (Computer testing; questions and answers)
2	Test №2	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student. Preparations control consists of translation in Latin and demonstration of 15 anatomical structures on the preparations, models, plates	Bank of test tasks (lists of structures according to topics of current monitoring and mid-term assessment)
3	Control work	A tool of checking the ability to apply acquired knowledge for solving problems of a certain type by topic or section	Set of control tasks in variants
4	Interview	A tool of control organized as a special conversation between the teacher and the student on topics related to the discipline being studied, and designed to clarify the amount of knowledge of the student on a specific section, topic, problem, etc.	Questions on topics/sections of the discipline

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence	Stage of competence formation	Controlled sections of the discipline	Assessment tools
UC-7 Able to maintain the proper level of physical condition to	Current	Introduction. Locomotor apparatus	Test №1 (Computer testing), Test №2 (Preparations control), Control work / Interview
	Current	Splanchnology	Test №1 (Computer testing), Test №2 (Preparations control),

ensure full-fledged social and professional activities			Control work / Interview
	Current	Immune system organs and lymph outflow pathways	Control work
	Current	Endocrine glands	Control work
	Current	Cardiovascular system	Control work / Interview
	Current	Neurology	Control work / Interview
	Current	Sense organs	Control work
UC-7	Mid-term	All sections	Test №1 (Computer testing), Test №2 (Preparations control), Interview

4. The content of the assessment tools of current control

Current control is carried out by the discipline teacher when conducting classes in the form of *Test №1 (Computer testing), Test №2 (Preparations control), Control work, Interview.*

4.1. Test №1 (Computer testing) for the assessment of competence "UC-7" :

001 (Locomotor apparatus). Choose one or more answers

Name the main parts of the rib.

- a – head
- b – body
- c – apex
- d – manubrium

Answers: head, body

002 (Locomotor apparatus). Choose one or more answers

Specify the parts of the temporal bone.

- a – body
- b – squamous part
- c – tympanic part
- d – petrous part

Answers: squamous part, tympanic part, petrous part

003 (Locomotor apparatus). Choose one or more answers

What movements are possible in the ankle joint?

- a – rotation of the fibula
- b – rotation of the tibia
- c – flexion and extension
- d – circular movements

Answers: flexion and extension.

004 (Locomotor apparatus). Choose one or more answers

Identify the suprahyoid muscles.

- a – mylohyoid
- b – digastric
- c – thyrohyoid
- d – stylohyoid

Answers: mylohyoid, digastric

005 (Splanchnology). Choose one or more answers

Specify the location of the lingual tonsill.

- a – tip of tongue
- b – body of tongue
- c – lateral surface of tongue

d – root of tongue

Answer: root of tongue

006 (Splanchnology). Choose one or more answers

Which abdominal organs relate to the peritoneum mesoperitoneally?

a – pancreas

b – descending colon

c – liver

d – sigmoid colon

Answers: descending colon, liver

007 (Splanchnology). Choose one or more answers

Specify the lung surfaces

a – diaphragmatic,

b – costal,

c – mediastinal,

d – visceral

Answers: diaphragmatic, costal, mediastinal

008 (Splanchnology). Choose one or more answers

What margins has the kidney got?

a – anterior

b – posterior

c – medial

d – lateral

Answers: medial, lateral

009 (Cardiovascular system. Immune organs and lymph outflow pathways). Choose one or more answers

Name the peripheral organs of the immune system.

a – red bone marrow

b – thymus

c – lymph nodes

d – tonsils

e – aggregate lymphoid nodules

Answers: lymph nodes, tonsils, aggregate lymphoid nodules

010 (Cardiovascular system. Immune organs and lymph outflow pathways). Choose one or more answers

Specify the grooves allocated at the heart.

a – diaphragmatic

b – interventricular anterior

c – coronary

d – interventricular posterior

Answers: interventricular anterior, interventricular posterior, coronary

011 (Neurology). Choose one or more answers

Name the gyri in the frontal lobe of the brain.

a – superior frontal gyrus

b – inferior frontal gyrus

c – precentral gyrus

d – postcentral gyrus

Answers: superior frontal gyrus, inferior frontal gyrus, precentral gyrus

012 (Neurology). Choose one or more answers

All masticatory muscles are innervated by:

a – trigeminal nerve

b – facial nerve

c – glossopharyngeal nerve

d – vagus nerve

Answer: trigeminal nerve.

013 (Sense organs). Choose one or more answers

Where is the outflow of humor aquosus from the anterior chamber of the eye.

a – venous sinus of the sclera

b – veins of the iris

c – episcleral space

d – lacrimal sac

Answer: venous sinus of the sclera

4.2. Test №2 (*Preparations control*) for the assessment of competence "UC-7" :

Preparations control «Locomotor apparatus»

1. Vertebral foramen
2. Head of rib
3. Frontal tuber
4. Lesser wing of sphenoid
5. Spine of scapula
6. Iliac crest
7. Calcaneus
8. Hip joint
9. Elbow joint
10. Rectus abdominis
11. Orbicularis oculi
12. Latissimus dorsi
13. Teres major
14. Gluteus medius
15. Semimembranosus

Preparations control «Splanchnology»

1. Oral cavity
2. Thoracic part of oesophagus
3. Transverse colon
4. Head of pancreas
5. Nasal bone
6. Thyroid cartilage
7. Cervical part of trachea
8. Base of lung
9. Lateral border of kidney
10. Renal columns
11. Abdominal part of ureter
12. Ovary
13. Fundus of uterus
14. Epididymis
15. Prostatic urethra

Preparations control «Cardiovascular system»

1. Base of heart
2. Left atrium
3. Left coronary artery
4. Left common carotid artery
5. Posterior intercostal arteries
6. Papillary muscles
7. Internal iliac vein
8. Popliteal artery
9. Inferior vena cava
10. Right subclavian vein
11. Radial artery
12. Azygos vein
13. Great [Long] saphenous vein
14. Palatine tonsil
15. Vermiform appendix

Preparations control «Neurology. Sense organs»

1. Superior sagittal sinus
2. Olive of medulla oblongata
3. Fourth ventricle
4. Superior colliculi
5. Mamillary body
6. Middle temporal gyrus
7. Lateral sulcus
8. Inferior frontal sulcus
9. Corpus callosum

10. Optic nerve [II]
11. Facial nerve [VII]
12. Median nerve
13. Iris
14. Lacrimal gland
15. Helix

4.3. Questions for Control works (/Interview) for the assessment of competence "UC-7" :

Questions for Control works for the section "Locomotor apparatus"

1. Which bones compose the pelvic girdle and free lower limbs?
2. Represent main structures of the femur. Draw pictures.
3. How many bones does the hand contain?
4. What bones of the brain box do you know?
5. Represent walls of the orbita.
6. Represent type of joints. Classify synovial joints according to construction, shapes of articular surfaces, axes of movements.
7. Define movements in large synovial joints of upper and lower limbs.
8. Describe main and additional elements of synovial joints.
9. Classify muscles according to shape, construction, function. Give examples.
10. Recognize superficial muscles of the back.

Questions for Control works for the section "Splanchnology"

1. Common features of the construction of the internal organs.
2. The oral cavity, oral vestibule and oral cavity proper, walls.
3. The teeth, construction of the teeth. Classification of the teeth, dental formula of the permanent and deciduous teeth.
4. The oesophagus, topography (skeletal, syntopy), parts, wall construction. The narrow places, innervation.
5. To compare the small intestine and large intestine.
6. The production and outflow of the bile, gall bladder, cystic duct. The right hepatic duct, left hepatic duct, common hepatic duct, forming, topography. The bile duct, forming, topography.
7. The external nose. The nasal cavity. The olfactory and respiratory regions.
8. List the paired and unpaired cartilages of the larynx. Describe the construction of cartilages.
9. Describe the trachea, main bronchi; topography, construction, function.
10. The mediastinum; the parts, the organs of the mediastinum, topography.
11. The kidneys, the structure (construction), the blood supply. Topography of kidneys, coverings. The minor calices, major calices, renal pelvis.
12. The ureter, the urinary bladder; the structures, the topography. The urethra, sex features.
13. The testis, the epididymis, structure, blood supply. The process of the descending of the testis. The coats of the testis.
14. The uterus; the parts, the topography, the ligaments, relationship to peritoneum. The blood supply. The uterine tube: the structure, relationship to the peritoneum.
15. The muscles and fasciae of the male perineum and female perineum.

Questions for Control works for the section "Cardiovascular system"

1. To find the peculiarities of branching of the femoral artery and the brachial artery.
2. To describe the inferior vena cava, forming, topography, visceral veins and parietal veins.
3. To recognise the superficial and deep veins of the lower extremity, topography.
4. The heart, the structure (construction) of the wall. Peculiarities of the myocardium of atria and ventricles. The conducting system of the heart.
5. The general organization of the heart. Characteristics of the chambers of the heart. The blood supply and innervation of the heart. The scheme of the vegetative innervation.
6. To describe the superficial and deep veins of the upper extremity, topography.
7. To find the intercostal veins, azygos vein and hemi-azygos vein.
8. To describe the hepatic portal vein, its topography and sources.
9. To draw and describe the blood supply of the fetus (fetal circle).
10. To describe the lymphatic capillaries, lymphatic vessels, lymphatic trunks and ducts.

Questions for Control works for the section "Neurology. Sense organs"

1. Principles of the nervous system construction and organization.
2. General data about the nervous tissue, structural elements of the nervous system (neuron, nervous fibres, receptor, synapse).

3. A notion of the reflex. Reflex arch as a basic anatomical and physiological unit of the nervous system. Simple and avoidance reflex arches.
4. The spinal cord, its form, topography. The segment of the spinal cord. Topography of the grey matter and white matter of the spinal cord.
5. The choroid plexus and choroid membrane of the fourth ventricle.
6. The anatomy and topography of the brain stem, its parts.
7. The topography of the cranial nerves: exits from the brain and exits through the skull openings.
8. Describe construction of the external ear. Peculiarities of the external acoustic meatus and tympanic membrane.
9. Explain the clinic aspects of the topography of the middle ear, walls of the tympanic cavity.
10. To draw the scheme of the visual analyzer.

5. The content of the assessment tools of mid-term assessment

Mid-term assessment is carried out in the form of a credit.

5.1 The list of control tasks and other materials necessary for the assessment of knowledge, skills and work experience (*Test №1 (Computer testing), Test №2 (Preparations control), Interview*)

5.1.2. Test №1 (Computer testing) with answers for the assessment of competence "UC-7" :

1. Specify the parts of the auricle
 - a – tragus
 - b – helix
 - c – triangular fossa
 - d - lobe
2. Specify the vessels and nerves that pass through the adductor canal.
 - a – femoral artery
 - b – femoral vein
 - c – obturator nerve
 - d – saphenous nerve
3. Specify which sinus the inferior sagittal sinus flows into.
 - a – straight sinus
 - b – transverse sinus
 - c – superior sagittal sinus
 - d – superior petrosal sinus
4. Specify the anatomical formations from which the lymph flows to the inguinal lymph nodes.
 - a – external genital organs
 - b – skin of the gluteal region
 - c – lower part of the anterior abdominal wall
 - d – lower limb
5. What segments compose the kidney?
 - a – superior
 - b – anterior superior
 - c – anterior inferior
 - d – inferior
 - e – posterior

№ <i>testing</i>	<i>Computer</i>	№ answers	№ <i>testing</i>	<i>Computer</i>	№ answers	№ <i>testing</i>	<i>Computer</i>	№ answers
1		a b c d	3		a	5		a b c d e
2		a b d	4		a b c d			

5.1.2. Test №2 (Preparations control) for a credit for the assessment of competence "UC-7" :

1. Sella turcica.
2. Vertebral body.
3. Infraspinalis.
4. Soleus.
5. Temporalis.
6. Transverse colon.

7. Thyroid cartilage.
8. Major calices.
9. Right coronary artery.
10. Right pulmonary artery.
11. Inferior vena cava.
12. Pyramid of medulla oblongata.
13. Superior parietal lobule.
14. Posterior chamber (eyeball).
15. Hypoglossal nerve.

5.1.3. Interview for a credit for the assessment of competence "UC-7" :

EXAM questions

The general theoretical questions.

1. Parts and regions of human body. Anatomical terminology. Axes, planes.

The anatomy of the locomotor apparatus.

1. The bone as the organ; The classification of bones. Construction of the long bone. Diaphysis. Epiphysis. Metaphysis. Periosteum and endosteum. Compact (lamellar) bone. Spongy bone.
2. The vertebrae of the different departments of the vertebral column (cervical, thoracic, lumbar, sacral and coccygeal).
3. The vertebral column as a whole: structure, bends, movements.
4. The ribs and the sternum: structure. The junctions of the ribs with the vertebrae and the sternum. The thoracic cage as a whole.
5. The bones of the cranium: frontal, occipital, parietal, ethmoidal. The orbit, the structure of walls, openings, their contents.
6. The temporal bone, its parts, openings, canals and their contents.
7. The sphenoidal bone, its parts, openings and their contents.
8. The maxilla, its parts, openings and their contents. The mandible, its parts, openings and their contents.
9. The bony nasal cavity, walls, openings. The paranasal sinuses.
10. The internal surface of the cranial base, the openings and contents.
11. The external surface of the cranial base, the openings, contents.
12. The classification of the bones connections (synarthroses, symphyses, diarthroses). Peculiarities.
13. The structure of the synovial joint (diarthrosis). The classification of the joints (shape of the articular surfaces, number of the axes, construction and organization). The volume of the movements in the joints.
14. The bones of the free part of the upper limb.
15. The shoulder joint; the structure, shape, the biomechanics. The elbow joint, the peculiarities of its structure.
16. The bones of the free part of the lower limb.
17. The bones of the pelvic girdle and their junctions. The pelvis as a whole. The sizes of the female pelvis. The difference between male pelvis and female pelvis.
18. The hip joint; the structure, shape, the movements. The knee joint, the structure, shape, the movements.
19. The general anatomy of the muscles; the structure of muscles as a organ, their classification by the form, the structure, etc. The anatomical and physiological diameter of muscles.
20. The muscles and fasciae of the chest, topography, points of attachments, functions.
21. The muscles and fasciae of the back, topography, points of attachments, functions.
22. The anatomy of the muscles of the abdomen, topography. The rectus sheath. The linea alba.
23. The inguinal canal, its walls, construction. The superficial and deep inguinal rings, the contents of the canal.
24. The diaphragm, parts, topography, functions.
25. The muscles of the neck. Topography of the muscles of the neck and fasciae; spaces of the neck.
26. The facial (mimetic) muscles, topography, points of attachments, functions, innervation.
27. The masticatory muscles, topography, points of attachments, functions, innervation.
28. The muscles of the shoulder (pectoral) girdle and arm, topography, points of attachments, functions. The muscles and the fasciae of the arm: topography, points of attachments, functions, blood supply and innervation.
29. The muscles of the hip girdle: topography, points of attachments, functions, blood supply and innervation.
30. The muscles of the anterior compartment of the thigh: topography, points of attachments, functions, blood supply and innervation. The femoral canal, its walls and rings.
31. The muscles of the medial and posterior compartments of the thigh: topography, points of attachments, functions, blood supply and innervation.
32. The muscles and the fasciae of the leg. Topography, points of attachments, functions, blood supply and innervation.

The anatomy of the inner organs.

1. General characteristic of the internal organs. Peculiarities of walls of the tube.
2. The oral cavity: the lips, oral vestibule, oral cavity proper, hard palate and soft palate. The structure, blood supply and innervation.
3. The deciduous and permanent teeth, their structure, their formula, the blood supply, innervation, lymphatic outflow.
4. The tongue, structure, functions, blood supply and innervation.
5. Salivary glands. The sublingual, submandibular and parotid glands; structure, the ducts of the glands, the blood supply and innervation.
6. The pharynx, its structure, blood supply and innervation. The lymph ring of the pharynx (Pirogov's ring). The oesophagus; topography, the structure, blood supply and innervation.
7. The stomach; the structure, topography, blood supply and innervation.
8. The small intestine; the parts, the structure, topography. The relationship with the peritoneum, blood supply and innervation. The duodenum.
9. The large intestine; its parts, topography, relationship with the peritoneum, the structure, the blood supply and innervation. The caecum. The vermiform appendix as an organ.
10. The rectum; topography, relation to the peritoneum, the structure of the wall, the blood supply and innervation.

11. The liver; the structure, topography, the blood supply. The gall bladder, the ducts of the gall bladder and the liver.
12. The pancreas; topography, the structure of the ducts of the pancreas.
13. The peritoneum, topography of the peritoneum at the upper storey (part) of the peritoneal cavity, at the middle storey (part) of the peritoneal cavity and the lower storey.
14. The external nose. The nasal cavity. The olfactory and respiratory regions.
15. The larynx. The cartilages of the larynx, the junctions. The muscles of the larynx, their classification, functions.
16. The trachea, the bronchi. Their structure.
17. The lungs: the topography. The segments of the lungs.
18. The pleura; the parts, the pleural cavity, topography, the pleural recesses.
19. The mediastinum; the parts, the organs of the mediastinum, topography.
20. The kidneys, the structure (construction), the blood supply. Topography of kidneys, coverings.
21. The ureter, the urinary bladder; the structures, the topography. The urethra, sex features.
22. The testis, the epididymis, structure. The process of the descending of the testis. The coats of the testis. The prostate, the seminal vesicles. Their structure, function. The blood supply and innervation.
23. The spermatic cord, its parts. The male external genital organs, their parts and anatomy.
24. The ovary; the topography, the structure, the relation to the peritoneum.
25. The uterus; the parts, the topography, the ligaments, relationship to peritoneum. The uterine tube: the structure, relationship to the peritoneum, the blood supply and innervation.
26. The muscles and fasciae of the male perineum and female perineum. The topography, points of attachments, functions, blood supply and innervation.

The anatomy of the blood and lymphatic vessels, the organs of immune system.

1. The general anatomy of the blood vessels. The large vessels, extraorganal and intraorganal vessels.
2. The peculiarities of vascularisation of the embryo, fetus and its changes after the birth.
3. The heart: topography, the projection of the borders and the valves of the heart on the anterior surface, the structure of the valves.
4. The heart, the structure (construction) of the wall. Peculiarities of the myocardium of atria and ventricles. The conducting system of the heart.
5. The general organization of the heart. Characteristics of the chambers of the heart.
6. The blood supply and innervation of the heart. The pericardium, construction, topography, sinuses.
7. The vessels of the lesser circle.
8. The aorta, departments. The branches of the aortic arch and thoracic aorta (parietal and visceral).
9. The parietal, visceral (paired and unpaired) branches of the abdominal aorta.
10. The common, external and internal iliac artery, topography, branches and supplying regions.
11. The external carotid artery, topography, the branches and supplying regions. The internal carotid artery, topography, the branches and supplying regions. The blood supply of the brain.
12. The subclavian artery; topography, the branches and supplying regions. The axillary and brachial arteries. Topography, branches and supplying regions.
13. The femoral artery: topography, the branches and supplying regions.. The popliteal artery, its branches. The blood supply of the knee joint.
14. The superior vena cava, tributaries (sources), topography. The azygos and hemi-azygos veins and their anastomoses. The brachiocephalic veins, tributaries (sources), topography.
15. The inferior vena cava, tributaries (sources), topography. Anastomoses.
16. The hepatic portal vein, tributaries (sources), topography. The branches of the hepatic portal vein in the liver.
17. The principles of the structure of the lymphatic system (capillaries, vessels, trunks and ducts), the ways of lymph circulation.
18. The thoracic duct, formation, structure (construction), topography, place of the confluence into the venous system.
19. The lymph node like an organ (structure, function). The classification of the lymph nodes.
20. The lymphatic vessels and nodes of the mammary glands, the regional lymph nodes.
21. The organs of the immune system, the classification. The central and peripheral organs of the immune system. The spleen; structure (construction), topography, blood supply, innervation.

The anatomy of nervous system and endocrine organs.

1. The classification of the nervous system. Principles of ontogenesis and phylogenesis.
2. The notion about the neuron; classification. The nervous fibres, fascicles, roots, and ganglia. The simple, avoidance and complex reflex arches.
3. The spinal cord: the segments, structure (construction), external features, internal features.
4. The telencephalon, cortex. Centres of the first and second signal systems. The sulci and the gyri of the medial and basal surfaces of the cerebral hemispheres.
5. The sulci and gyri of the superolateral surface of the cerebral hemispheres.
6. The classification of the white matter. The association system of the fibres of the white matter. The commissural and projection fibres of the hemispheres of the brain (the corpus callosum, the fornix, the commissures, the internal capsule).
7. The lateral ventricles, parts, walls. The third ventricle, walls.
8. The diencephalon, parts, external features, internal features.
9. The midbrain (mesencephalon), parts; external features, internal features. The topography of the nuclei of the cranial nerves.
10. The metencephalon, parts, external features, internal features. The topography of the nuclei of the cranial nerves.
11. The cerebellum, parts, external features, internal features (the cerebellar nuclei, the cerebellar peduncles).
12. The medulla oblongata, external features, internal features. The topography of the nuclei of the cranial nerves.
13. The rhomboid fossa, its relief, the projection of nuclei of the cranial nerves. The fourth ventricle, walls, circulation of the cerebrospinal fluid.
14. The meninges of the brain and spinal cord, the spaces.
15. The spinal nerve and its branches. The cervical plexus, topography, branches, regions of innervation.
16. The brachial plexus, topography, branches, regions of innervation.
17. The lumbar plexus; topography, the branches and regions of innervation.

18. The sacral plexus, topography, the branches and regions of innervation. Short branches. The sciatic nerve, topography, the branches and regions of innervation. The innervation of the skin of the lower limb.
19. The I and II pairs of the cranial nerves. The conducting pathway of the visual analyser, smell analyser.
20. The III, IV, VI pairs of the cranial nerves, the regions of innervation. The pathways of the pupillary reflex and accommodation.
21. The trigeminal nerve (V pair of the cranial nerves), the branches, topography and regions of innervation.
22. The ophthalmic nerve, the branches, topography and regions of innervation.
23. The maxillary nerve, the branches, topography and regions of innervation.
24. The mandibular nerve, the branches, topography and regions of innervation.
25. The facial nerve, topography, the branches and regions of innervation.
26. The vestibulocochlear nerve (VIII pair of the cranial nerves), topography of the nuclei. The conducting pathways of the vestibular analyzer.
27. The vagus nerve, the topography of the nuclei, the branches and regions of the innervation.
28. The glossopharyngeal nerve (IX pair of the cranial nerves), the nuclei, the topography, the branches and regions of innervation.
29. The accessory nerve (XI) and hypoglossal nerve (XII), the nuclei, topography, branches and regions of innervation.
30. The autonomic division (part) of the nervous system, its parts, the characteristics of the parts.
31. The parasympathetic part of the autonomic division of the nervous system. The general characteristic, the ganglions, roots, the distribution of the branches, the cranial and pelvic parts.
32. The sympathetic part of the autonomic division of the nervous system. The general characteristics of the sympathetic trunk (the cervical part, the thoracic part, the lumbar and sacral part).
33. The endocrine organs. The characteristics, principles of organisation, functions. The classification. Development.
34. The thyroid gland. The structure, the function, the topography. The blood supply of the organ.
35. The suprarenal glands (the structure, function, topography, blood supply of the gland).
36. The hypophysis, epiphysis (topography, structure (construction), blood supply, innervation).

The anatomy of the sensory organs.

1. The external ear, its parts, structure (construction), blood supply, innervation.
2. The anatomy of the middle ear (the tympanic cavity, the auditory ossicles, the auditory (pharyngotympanic) tube, the mastoid antrum and cells). The blood supply and innervation.
3. The internal ear; the bony and the membranous labyrinths. The spiral organ. The conducting pathway of the auditory analyser.
4. The organ of vision; the general plan of the structure, the fibrous coat, the vascular coat of the eyeball, its parts. The mechanism of the accommodation. The retina. The refraction environments (surroundings) of the eyeball (the cornea, the aqueous humour of the chambers, the lens, the vitreous body).
6. The accessory visual structures; the extra-ocular muscles, eyebrow, eyelids, conjunctiva, the lacrimal apparatus, their blood supply, innervation.
7. The anatomy of the skin and of its derivatives. The mammary gland; the topography, the structure, the vascularisation and innervation. The transport of the lymph.

6. Criteria for evaluating learning outcomes

For the credit

Learning outcomes	Evaluation criteria	
	Not passed	Passed
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made
Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.

The level of competence formation	Low	Medium/High
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For testing:

Mark "5" (Excellent) - points (100-90%)

Mark"4" (Good) - points (89-80%)

Mark "3" (Satisfactory) - points (79-70%)

Less than 70% – Unsatisfactory – Mark "2"

Developer(s):

Stelnikova I.G. - M.D., PhD., professor, Head of the Human Anatomy Department

Kurnikova A.A – candidate of medical science, assistant professor (docent), human anatomy department