СТОМ-21ИН

FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION OF HIGHER EDUCATION
"NORTH OSSETIAN STATE MEDICAL ACADEMY"
OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

ДОКУМЕНТ ПОДПИСАН ЭЛЕКТРОННОЙ ПОДПИСЬЮ

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Владелец: Ремизов Олег Валерьевич
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APPROVED
Rector of the FSBEI of HE NOSMA of the Ministry of Health of Russia
_____ O. V. Remizov
May, 24, 2023

THE WORKING PROGRAM OF THE DISCIPLINE

HUMAN ANATOMY – ANATOMY OF THE HEAD AND NECK

the main professional educational program of higher education - specialty program in the specialty 31.05.03 Dentistry, approved on May, 24, 2023

Specialty **31.05.03 Dentistry** (Educational program, partially implemented in English)

Form of Education **Full-time**

The Duration of mastering the basic professional educational program 5 years

The Department of Human Anatomy with Topographic Anatomy and Operative Surgery

Vladikavkaz, 2023

In the development of working program it is based on:

1. Federal State Educational Standard of Higher Education in the specialty **31.05.03 Dentistry** approved by the Ministry of Education and Science of the Russian Federation **of August 12, 2020 No. 984**

2. Curriculum for specialty **31.05.03 Dentistry** (СТОМ-21-03-23ИН), approved by the Academic Council of the Federal State Budget Educational Institution of Higher Education "NORTH OSSETIAN STATE MEDICAL ACADEMY" of the Ministry of Health of the Russian Federation of the 24 of May 2023, protocol № 8.

The working program of the discipline was approved at the conference of the Department of Human Anatomy with Topographic Anatomy and Operative Surgery of the 18 of May 2023, protocol №10.

The working program of the discipline was approved at the meeting of the Central Coordination Educational and Methodical Council of the 23 of May 2023, protocol №5

The working program of the discipline was approved by the Academic Council of the Federal State Budget Educational Institution of Higher Education "NORTH OSSETIAN STATE MEDICAL ACADEMY" of the Ministry of Health of the Russian Federation of the 24 of May 2023, protocol №8.

Program developer:

Head of the Department of Human Anatomy with Topographic Anatomy and Operative Surgery of the Federal State Budget Educational Institution of Higher Education "NORTH OSSETIAN STATE MEDICAL ACADEMY" of the Ministry of Health of the Russian Federation, Associate Professor _____ O. N. Totoeva

Reviewers:

Bibaeva L.V. — Head of the Department of Biology and Histology of the Federal State Budget Educational Institution of Higher Education "NORTH OSSETIAN STATE MEDICAL ACADEMY" of the Ministry of Health of the Russian Federation, Prof. Dr. med.

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The contents of the work program

1. Name of discipline;
2. A list of intended learning outcomes for the discipline associated with the planned results of educational programs;
3. The indication of the place of discipline in the structure of the educational program;
4. The amount of discipline in credit units indicating the number of academic or astronomical hours allocated for contact work of students with the teacher (types of classes) and independent work of students;
5. The content of the discipline, structured by topics (sections) with indication allocated to them the number of academic or astronomical hours and types of training sessions;
6. The list of training and methodological support for independent work of students on discipline;
7. Assessment tools for intermediate evaluation of students in the discipline;
8. The list of basic and additional educational literature required for the development of the discipline;
9. List of resources information and telecommunications network "Internet" (further - a network "the Internet") necessary for the development of the discipline;
10. Methodical instructions for students for the development of the discipline;
11. The range of information technologies used in the implementation of the educational process in the discipline, including a list of software and information reference systems (if necessary);
12. Description of material-technical base necessary for realization of the educational process in the discipline.
13. Conducting educational activities using e-learning and distance learning technologies.

1. The name of the discipline - HUMAN ANATOMY - ANATOMY OF THE HEAD AND NECK.

2. The list of planned learning outcomes in the discipline and the results of mastering the educational program

№ №	Competency number / index	Content of competence	Topic of the lesson (section)	Competence achievement indicators	The learning outcomes		
					to know	to be able to	to master
1	*2*	*3*	*4*	***5***	***6***	***7***	*8*
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Anatomical terminology. Axes and planes. Bones of the trunk. Age features. X-ray anatomy.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Basic terms used in anatomy to indicate the position of individual points and lines in Russian and Latin transcriptions. 2. The name in Russian and Latin transcription and the mutual position of axes and planes used in anatomy. 3. Which parts are isolated in the spinal column and how many vertebrae form them. 4. Structure and distinctive features of cervical, thoracic, lumbar vertebrae. 5. Features of the structure of the I and II cervical vertebrae. 6. Distinctive features of the I-st, X-th and XI-XII thoracic vertebrae. 7. Parts and details of the structure of the sacrum and coccyx. 8. Classification and structure of ribs. 9. Distinctive features of the I-st, X-th, XI-th and XII-th ribs. 10. Structure of the sternum: arm, body, xiphoid process. 11. X-ray anatomy of the bones of the trunk. 12. Age features of the bones of the trunk.	1. To name and show the direction and mutual position of the axes and planes of the human body. 2. To name and show parts of the skeleton, parts of the spinal column; 3. Distinguish between different types of vertebrae; 4. Correctly to name and show on preparations, details of a structure of vertebrae of various parts of a vertebral column; 5. Correctly connect vertebrae together; 6. To name and show the bends of the spinal column; 7. Determine the parts of the spinal column, individual vertebrae and their parts on radiographs. 8. To find in the set of ribs their individual species, to determine the parts and belonging to the right or left half of the thorax; 9. Correctly orient the sternum, show and name its parts; 10. Correctly determine the shape of the chest;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	The skeleton of the upper limb. The bones of the girdle of the upper limb. The bones of the free upper limb. The skeleton of the lower limb. The bones of the girdle of the lower limb. The bones of the free lower limb. Age peculiarities. X-ray anatomy.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. The structure and topography of the clavicle. 2. The structure and topography of the scapula. 3. Structure and topography of bones of the free upper limb. • Structure and topography of the humerus, • Structure and topography of the bones of the forearm (radial and ulna bones) • The structure and topography of the bones of the hand (wrist bones, pasterns, phalanges of fingers). 4. X-ray anatomy of the bones of the upper extremities belt and bones of the free upper limb. 5. Age features of the bones of the upper	1. To name and show individual bones of the shoulder girdle, 2. Correctly orient individual bones of the shoulder girdle in space; 3. Show details of the structure of the bones of the shoulder girdle; 4. Put the humerus in the correct anatomical position, show its parts and details of the structure. 5. Put the radial bone in the correct anatomical position. 6. Put the elbow in the right anatomical position. 7. Put a brush in the correct anatomical position, 8. Determine the bones of the right and left limbs; 9. Show details of the structure of the bones of the	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					extremity belt and the bones of the free upper limb 1. Sources and course of development, the most common anomalies of bone development, 2. Anatomical structure of the bones of the lower limbs in interrelation with the function; 3. Parts of the skeleton of the lower limb; 4. Structure of the pelvic bone (iliac, ischial, pubic bone); 5. Parts of the skeleton of the free lower limb; 6. The structure of the femur. 7. Structure of the tibia; 8. The structure of the fibula; 9. Departments of the foot, the structure of the individual bones of the foot; 10. The name of the anatomical formations of the bones of the lower extremities in Russian and Latin; 11. X-ray anatomy of the bones of the lower extremity belt and bones of the free lower limb. 12. Age features of the bones of the lower extremity belt and the bones of the free lower limb.	forearm and hand; 10. Possess a medical-anatomical conceptual apparatus; 11. Possess the simplest medical instruments - a scalpel and tweezers. 1. Find and show on the anatomical preparations of the bones of the lower limb parts, details of the structure, correctly call them in Russian and Latin; 2. To put pelvic and femur in the correct anatomical position, 3. Determine the bones of the right and left limbs; 4. To show the main details of the structure of the pelvic and femur; 5. Determine the position of the bones of the lower leg and the foot in the skeleton; 6. Correctly show the anatomical formations of the bones of the shin and foot; 7. On the anatomical preparations (isolated bones) and radiographs of the bones of the lower extremities, to identify and describe their anatomical structures; 8. To palpate on the person the basic bone reference points of the studied bones. 9. Possess a medical-anatomical conceptual apparatus; 10. Own the simplest medical instruments - a scalpel and tweezers.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Skull bones (general knowledge). Brain and facial parts of the skull (general data). Bones and their components (names, parts, location). Skull as a whole. Roof, base of the skull, their formation. Eye socket, nasal cavity (name, parts, location). X-ray anatomy.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Anatomical structure of the bones of the facial skull in relation to function; 2. Anatomical structure of the bones of the cerebral skull in relation to function; 3. The name of the anatomical formations of the bones of the brain and facial skull in Russian and Latin; 4. Sources and course of development, the most common anomalies in the development of bones, 5. Age features of the bones of the cerebral skull and facial bones; 6. Topographic and anatomical relationships of the bones of the cerebral and facial parts of the skull. 7. X-ray anatomy of the parietal, occipital, frontal, sphenoid, ethmoid bones. 8. Age features of the bones of the cerebral skull. 9. The structure and topography of the bones that form the facial region of the skull. 10. The structure and topography of the temporal bone;	1. To find and show on anatomical preparations of the bones of the cerebral and facial skull their parts, details of the structure, correctly call them in Russian and Latin; 2. Determine the position of the bones of the cerebral skull and facial bones on the skull, be able to determine their topographic relationships; 3. On anatomical preparations (isolated bones) and radiographs of the bones of the cerebral and facial skull to identify and describe their anatomical structures; 4. Palpate the main bone landmarks of the studied bones on a person. 5. Find and show on anatomical preparations of the bones of the facial skull their parts, details of the structure, correctly call them in Russian and Latin; 6. Determine the position of the bones of the facial skull on the skull, be able to determine their topographic relationships; 7. Show details of the structure of the temporal bone on individual preparations. 8. To show on separate preparations the course of the channels of the temporal bone. 9. To identify and describe their anatomical structures on anatomical preparations (isolated bones) and radiographs of the bones of the facial skull;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					11. Channels of the temporal bone, walls, contacts, meaning. 12. The structure of the upper jaw. 13. The structure of the lower jaw. 14. The structure of the hyoid bone 15. Topographic and anatomical relationships of the bones of the facial section of the skull. 16. X-ray anatomy of the temporal bone and bones of the facial skull. 17. Sources and course of development, the most common anomalies of bone development 18. Age features of the bones of the facial section of the skull; 19. The name of the anatomical formations of the bones of the facial skull in Russian and Latin 20. Development of the skull (phylogeny and ontogeny). 21. Features of the structure of individual bones of the cerebral and facial skull in connection with their development and functions. 22. Topography of the skull: the vault of the skull, the outer and inner base of the skull. 23. Anterior, middle and posterior cranial fossa, orbit, nasal cavity; bone base of the oral cavity; temporal, infratemporal and pterygo-palatine fossa. Their walls, messages, meaning. 24. Paranasal sinuses, structure, topography, meaning. 25. Age features of the skull: the skull of a newborn (fontanelles and other signs), the ratio in the development of the cerebral and facial skull; periods of intensive growth of the skull after birth. 26. Senile changes in the bones of the skull. 27. Sexual and typical features of the skull structure, developmental anomalies. 28. X-ray anatomy of the skull. Criticism of racist theories in the teaching of the skull.	10. Palpate the main bone landmarks of the studied bones on a person. 11. To name and show on preparations and visual aids the main topographic formations of the skull. 12. Explain the structure, messages and contents of the main topographic formations of the skull, the meaning of holes and channels:	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Arthrology. The connection of the bones of the trunk. Development of compounds, classification. Structure of joints, classification, movements in joints. The connection of the	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological	1. Types of continuous connections: syndesmosis, synchondrosis, synostosis. 2. Discontinuous joints - joints. 3. The main and auxiliary elements of the joints. 4. The main axes of movement. 5. Forms of articular surfaces. 6. Multiaxial, biaxial and uniaxial joints. 7. Connecting the vertebrae to each other and to the skull. Ligaments that strengthen them. 8. Intervertebral (arch-process) joints 9. The type of connection of the sacrum with the	1. Show the main axes of movement and the possible volume of movement around them on the preparations. 2. Describe the shapes of articular surfaces. 3. Show the main and auxiliary elements of the joints on a wet preparation. 4. Show the joints of the vertebrae with each other and with the skull, the sacrum with the coccyx, as well as the joints of the ribs with the sternum and with the vertebrae. 5. Show the joints of the skull bones (sutures, fontanelles) 6. Show the temporomandibular joint and its structural details on a wet preparation	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

			bones of the skull (general characteristics).	processes of the human body	coccyx, 10. The spine as a whole. 11. Structure and biomechanics of the temporomandibular joint 12. Types of connection of the ribs with the sternum and with the vertebrae. 13. The joints of the ribs with the sternum and with the vertebrae. Ligaments that strengthen them. 14. The chest as a whole. Age features.	7. Explain the mechanism of formation of physiological bends and possible movements in the spinal column. 8. Answer test questions, 9. Read radiographs of the joints of the bones of the trunk. 10. Dissect joints (under the supervision of a teacher).	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Arthrology. Joints of the bones of the upper limb - belt, shoulder, forearm, hand. Joints of the bones of the lower extremity - pelvis, hip, shin, foot. X-ray anatomy of joints.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. The structure of the shoulder joint. 2. Characteristics of the shoulder joint according to anatomical and biomechanical classifications. 3. Ligamentous apparatus of the shoulder joint. 4. Biomechanics of the shoulder joint. 5. The structure of the elbow joint. 6. Characteristics of the elbow joint according to anatomical and biomechanical classifications. 7. Ligamentous apparatus of the elbow joint. 8. Biomechanics of the elbow joint. 9. The structure of the proximal and distal radiocarpal joints. 10. Characteristics of the proximal and distal radial elbow joints according to anatomical and biomechanical classifications. 11. Ligamentous apparatus of the proximal and distal radiocarpal joints. 12. Biomechanics of the proximal and distal radiocarpal joints. 13. The structure of the wrist joint. 14. Characteristics of the wrist joint according to anatomical and biomechanical classifications. 15. Ligamentous apparatus of the wrist joint. 16. Biomechanics of the wrist joint. 17. The structure of the joints of the bones of the hand. 18. Characteristics of the joints of the bones of the hand according to anatomical and biomechanical classifications. 19. Ligamentous apparatus of the joints of the bones of the hand. 20. Biomechanics of the joints of the bones of the hand. 21. Age-related features of the joints of the bones of the upper limb. 22. Joints of the pelvic bones. 23. The structure of the sacroiliac joint. 24. Characteristics of the sacroiliac joint according to anatomical and biomechanical classifications. 25. Ligamentous apparatus of the sacroiliac joint. 26. The structure of the pubic symphysis. 27. The pelvis as a whole. Large and small pelvis. 28. Pelvic dimensions. Sexual differences. 29. X-ray anatomy of the pelvis. 30. The structure of the hip joint. 31. Characteristics of the hip joint according to	1. Show the structural elements (articular surfaces, ligamentous apparatus) of the shoulder joint on a wet preparation. 2. Describe the shapes of the articular surfaces of the shoulder joint. 3. Explain the biomechanics of movement in the shoulder joint. 4. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the elbow joint on a wet preparation. 5. Describe the shapes of the articular surfaces of the elbow joint. 6. Explain the biomechanics of movement in the elbow joint. 7. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the joints of the forearm bones on a wet preparation. 8. Describe the shapes of the articular surfaces of the joints of the forearm bones. 9. Explain the biomechanics of movement in the joints of the forearm bones. 10. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the wrist joint on a wet preparation. 11. Describe the shapes of the articular surfaces of the wrist joint. 12. Explain the biomechanics of movement in the wrist joint. 13. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the joints of the bones of the hand on a wet preparation. 14. Describe the shapes of the articular surfaces of the joints of the bones of the hand. 15. Explain the biomechanics of movement in the joints of the bones of the hand. 16. Answer test questions. 17. Read radiographs of the joints of the bones of the upper limb. 18. Dissect the joints of the upper limb (under the supervision of a teacher). 19. Show the structural elements of the joints of the pelvic bones on a wet preparation. 20. Show the structural elements (articular surfaces, ligamentous apparatus) of the hip joint on a wet preparation. 21. Describe the shapes of the articular surfaces of the hip joint.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					anatomical and biomechanical classifications. 32. Ligamentous apparatus of the hip joint. 33. Biomechanics of the hip joint. 34. X-ray anatomy of the hip joint. 35. The structure of the knee joint. 36. Characteristics of the knee joint according to anatomical and biomechanical classifications. 37. Ligamentous apparatus of the knee joint. 38. Biomechanics of the knee joint. 39. X-ray anatomy of the knee joint. 40. Features of the structure of the proximal and distal joints of the tibial-fibular joints (joints of the bones of the lower leg). 41. Characteristics of the proximal and distal joints of the shin bones according to anatomical and biomechanical classifications. 42. Ligamentous apparatus of the proximal and distal joints of the shin bones. 43. Biomechanics of the proximal and distal joints of the shin bones. 44. The structure of the ankle joint. 45. Characteristics of the ankle joint according to anatomical and biomechanical classifications. 46. Ligamentous apparatus of the ankle joint. 47. Biomechanics of the ankle joint. 48. X-ray anatomy of the joints of the bones of the lower leg and ankle joint. 49. The structure of the joints of the bones of the foot. 50. Characteristics of the tarsal joints according to anatomical and biomechanical classifications. Ligamentous apparatus. 51. Transverse joint of the tarsus (Shoparov joint), the tarsus-metatarsal joint (Lisfrank joint) 52. Metatarsal-phalangeal and interphalangeal joints of the foot 53. Biomechanics of the joints of the foot. 54. X-ray anatomy of the joints of the foot 55. Age-related features of the joints of the bones of the lower limb.	22. Explain the biomechanics of movement in the hip joint. 23. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the knee joint on a wet preparation. 24. Describe the shapes of the articular surfaces of the knee joint. 25. Explain the biomechanics of movement in the knee joint. 26. Show structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the joints of the shin bones on a wet preparation. 27. Describe the shapes of the articular surfaces of the joints of the shin bones. 28. Explain the biomechanics of movement in the joints of the shin bones. 29. Show structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the ankle joint on a wet preparation. 30. Describe the shapes of the articular surfaces of the ankle joint. 31. Explain the biomechanics of movement in the ankle joint. 32. Show the structural elements (articular surfaces, ligamentous apparatus, auxiliary structures) of the joints of the foot bones on a wet preparation. 33. Describe the shapes of the articular surfaces of the joints of the bones of the foot. 34. Explain the biomechanics of movement in the joints of the bones of the foot. 35. Explain the structure and significance of the transverse joint of the tarsus (Shoparov joint) and the tarsus-metatarsal joint (Lisfrankov joint). 36. Explain the formation and meaning of the arches of the foot. 37. Answer test questions. 38. Read radiographs of the joints of the bones of the lower limb. 39. Dissect the joints of the lower limb (under the supervision of a teacher).	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Myology. Muscles and fascia of the trunk. Muscle development. Muscle as an organ. Muscles and fascia of the chest, diaphragm. Abdominal muscles and fascia, inguinal canal, white line, umbilical ring. Muscles and fascia of the back.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Development of the diaphragm. 2. The structure of the diaphragm, its parts, functions. Weak points of the diaphragm. 3. Development of the chest muscles. 4. Classification of the chest muscles. 5. Muscles acting on the joints of the shoulder girdle, their name, structure, place of origin, place of attachment, function. 6. Own (autochthonous) chest muscles, their name, structure, place of origin, place of attachment, function. 7. Breast fascia. 8. The name of anatomical formations of the diaphragm, chest muscles in Russian and Latin; 9. Development of abdominal muscles. 10. Borders and abdominal areas.	1. Show the structural elements of the diaphragm on a wet preparation, explain their function. 2. Name and show the wet preparation of the chest muscles, the place of their origin and the place of attachment and explain their function. 3. List the fascia of the breast and their functional significance. 4. Show the back muscles on a wet preparation, the place of their origin and the place of attachment and explain their function. 5. List the fascia of the back and their functional significance. 6. Name and show the abdominal muscles in the wet preparation, the place of their origin and the place of attachment and explain their function. 7. List the fascia of the abdomen and their functional	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					11. Muscles of the side walls of the abdominal cavity, their name, structure, place of origin, place of attachment, function. 12. Muscles of the anterior abdominal wall, their name, structure, place of origin, place of attachment, function. 13. Muscles of the posterior abdominal wall, their name, structure, place of origin, place of attachment, function. 14. Fascia of the abdomen. 15. Topographic formations of the anterior abdominal wall – a white line, the vagina of the rectus abdominis muscle, the inguinal canal. 16. Development of back muscles. 17. Classification of back muscles. 18. Superficial muscles of the back, their name, structure, place of origin, place of attachment, function. 19. Deep back muscles, their name, structure, function. 20. Fascia of the back. 21. The name of the anatomical formations of the back, abdomen in Russian and Latin;	significance. 8. Name and show the topographic formations of the abdomen on a wet preparation. 9. Explain the differences in the structure of the walls of the vagina of the rectus abdominis above and below the arcuate line. 10. Use anatomical instruments (tweezers, scalpel) 11. Dissect muscles (under the supervision of a teacher).	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Myology. Muscles and fascia of the head and neck: general data (to know muscle groups, names, to navigate in the location). Muscles of the upper limb: waist, shoulder, forearm, hand. Topography of the upper limb. Fascia, synovial canals and vaginas of the upper extremity.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Development of the muscles of the head. 2. Development of neck muscles. 3. Borders and areas of the head. 4. Features of the structure and topography of the masticatory muscles, their function. 5. Features of the structure and topography of facial muscles. Their classification and functions. 6. Fascia of the head. 7. Head spaces, their messages and meaning. 8. The name of anatomical formations of the muscles of the head in Russian and Latin; 9. Development of neck muscles. 10. Neck borders. 11. Classification of neck muscles. 12. Features of the structure and topography of the neck muscles and their functions. 13. Neck triangles, meaning. 14. Fascia of the neck. 15. Cellular spaces of the neck, their boundaries and meaning. 16. Interstitial and prestitial spaces. 17. The name of the anatomical formations of the neck muscles in Russian and Latin; 18. Classification of shoulder, forearm and hand muscles. 19. Origin, attachment and functions of the shoulder girdle muscles. 20. The beginning, attachment and functions of the shoulder muscles (anterior and posterior groups). 21. The origin, attachment and functions of the forearm muscles (anterior and posterior groups). 22. The beginning, attachment and functions of the muscles of the hand.	1. Show the masticatory muscles of the head on the dummy and wet preparation and explain their function. 2. Show the mimic muscles of the head on the dummy and wet preparation and explain their function. 3. List the fascia of the head and their functional significance. 4. Explain the connections of the interfacial spaces of the head and possible ways of spreading infection 5. Name and show on the dummy and wet preparation the superficial, deep neck muscles and explain their function. 6. Show the areas and triangles of the neck on the dummy and wet preparation. 7. List and explain the functional significance of fascia and cellular spaces of the neck. 8. Use anatomical instruments (tweezers, scalpel) 9. Dissect muscles (under the supervision of a teacher). 10. Name and show the shoulder girdle muscles, the place of their origin and the place of attachment and explain their function in a wet preparation. 11. Name and show the shoulder muscles in the wet preparation, their place of origin and place of attachment and explain their function. 12. Name and show the wet preparation of the muscles of the anterior forearm group, the place of their origin and the place of attachment and explain their function. 13. Name and show the muscles of the posterior group of the forearm, the place of their origin and the place of attachment and explain their function in a wet preparation. 14. Name and show the wet preparation of the muscles of the hand, the place of their origin and the place of attachment and explain their function. 15. Show topographic formations of the upper limb (axillary fossa, axillary cavity, radial nerve canal	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					23. Fascia of the upper limb (deltoid, supraspinatus, subacute, fascia of the shoulder, forearm and hand). 24. Upper limb flexor and extensor restraints, wrist canal, synovial vaginas. 25. Topographic formations of the upper limb (axillary fossa, axillary cavity, radial nerve canal (brachiomuscular canal), ulnar fossa, furrows of the forearm). 26. Bone-fibrous channels and synovial vaginas of the hand. Pirogov Space	(brachiomuscular canal), ulnar fossa, forearm furrows). Explain their boundaries, messages, and clinical significance. 16. Explain the boundaries, topography and clinical significance of bone-fibrous channels and synovial vaginas of the hand. Pirogov space.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Muscles of the lower limb. Topography of the lower limb. Fasciae, synovial canals and sheaths of the lower extremity.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Classification of pelvic and hip muscles. 2. Classification of the muscles of the lower leg and foot. 3. The origin, attachment and function of the pelvic and hip muscles. 4. The beginning, attachment and function of the muscles of the lower leg and foot. 5. The name of the muscles and fascia of the pelvis, thigh, shin and foot in Russian and Latin; 6. Fascia of the pelvis and hip. Functional value. 7. Fascia of the lower leg and foot. Functional value. 8. Topographic formations of the lower limb. 9. Synovial sheaths of tendons of muscles of the lower extremity.	1. Name and show a group of external pelvic muscles in a wet preparation, their place of origin and place of attachment and explain their function. 2. Name and show a group of internal pelvic muscles in a wet preparation, the place of their origin and the place of attachment and explain their function. 3. Name and show the wet preparation of the muscles of the anterior thigh group, the place of their origin and the place of attachment and explain their function. 4. Name and show the muscles of the medial thigh group, the place of their origin and the place of attachment and explain their function in a wet preparation. 5. Name and show the wet preparation of the muscles of the posterior thigh group, the place of their origin and the place of attachment and explain their function. 6. Show the wide fascia of the thigh. 7. Show the lateral and medial intermuscular septa of the thigh. 8. Name and show on the preparation the anterior muscle group of the lower leg, the place of their origin and the place of attachment and explain their function. 9. Name and show on the preparation the lateral muscle group of the lower leg, the place of their origin and the place of attachment and explain their function. 10. Name and show on the preparation the posterior muscle group of the lower leg, the place of their origin and the place of attachment and explain their function. 11. Name and show the muscles of the plantar surface of the foot. 12. Name and show the muscles of the back of the foot. 13. Show your own fascia of the lower leg and its intermuscular septa. 14. To show the restraints of the tendons of the muscles of the lower leg and the synovial sheaths of the tendons of the muscles of the foot. 15. Use anatomical instruments (tweezers, scalpel) 16. Dissect muscles (under the supervision of a teacher). 17. Show topographic formations of the thigh, lower leg and foot (supra- and sub-crustal openings, occlusal canal, muscular and vascular lacunae, femoral triangle (Scarpa triangle), femoral canal, adductor canal (Gunter canal), popliteal fossa, tibial canal (Gruber canal), upper and lower muscular-peroneal canals).	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional	Able to assess morphofunctional, physiological conditions	FINAL LESSON OF THE TOPIC "Bones, joints, muscles"	Achievement Indicator-1 GPC-9	1. Sources and course of development, the most common anomalies of bone development, 2. Anatomical structure of the bones of the trunk,	1. To show anatomical formations of the bones of the trunk, upper and lower limbs, their parts, details of the structure on preparations, models, correctly call them in	- medical and anatomical

	competences)	and pathological processes in the human body to solve professional problems		Determines the morphofunctional, physiological states and pathological processes of the human body	upper and lower limbs, their parts, details of the structure, correctly call them in Russian and Latin; 3. Phylogeny and ontogenesis of the skull. 4. The most common abnormalities of bone development, 5. Anatomical structure of individual skull bones, it is correct to call them in Russian and Latin; 6. Topographic formations of the skull, their walls, contents, messages. 7. Axes and planes of the human body. 8. Classification of bone joints. 9. Structure, ligamentous apparatus, biomechanics of movements of the joints of the trunk and limbs. 10. Radiological features of the structure of the joint of the bones of the trunk and limbs. 11. Age-related features of bone joints 12. Classification of neck muscles. 13. Classification of the muscles of the head. 14. Classification of the chest muscles 15. Classification of back muscles 16. Classification of abdominal muscles 17. The beginning, attachment, functions of the neck muscles. 18. The beginning, attachment, functions of the muscles of the head. 19. The beginning, attachment, functions of the chest muscles 20. The beginning, attachment, functions of the back muscles 21. The beginning, attachment, functions of the abdominal muscles 22. Fascia and interfacial spaces of the head 23. Fascia and interfacial spaces of the neck 24. Fascia and interfacial spaces of the head. 25. Fascia and interfacial spaces of the breast 26. Fascia and interfacial spaces of the back 27. Fascia and interfacial spaces of the abdomen 28. Topographic formations of the neck. Neck Triangles 29. Topographic formations of the head. 30. Topographic breast formations 31. Topographic formations of the back 32. Topographic formations of the abdomen 33. Classification of upper limb muscles. 34. Classification of the muscles of the lower limb. 35. The beginning, attachment, functions of the muscles of the upper limb. 36. The beginning, attachment, functions of the muscles of the lower limb. 37. Fascia and interfacial spaces of the upper limb 38. Fascia and interfacial spaces of the lower limb. 39. Topographic formations of the upper limb 40. Topographic formations of the lower limb.	Russian and Latin; 2. Possess a medical-anatomical conceptual apparatus; 3. Palpate on a person the main bone landmarks of the studied bones of the trunk. 4. To show anatomical formations, their parts, details of the structure on the skull preparations, individual skull bones, dummies, correctly call them in Russian and Latin; 5. To identify and describe their anatomical structures and topographic features on radiographs of the skull bones; 6. Possess a medical-anatomical conceptual apparatus; 7. Palpate the main bone landmarks of the studied skull bones on a person. 8. Show on the preparations the main axes of movement and the possible volume of movement around them. 9. Describe the shapes of articular surfaces. 10. Show the main and auxiliary elements of the joints on a wet preparation. 11. Show the joints of the bones of the trunk and limbs on wet preparations. 12. Explain on radiographs the structure and age features of the connection of the bones of the trunk and limbs. 13. Show the beginning, attachment of the muscles of the head, neck, back, chest, abdomen on a wet preparation. 14. Explain the function of the muscles of the head, neck, back, chest, abdomen. 15. To name in Russian and Latin languages and to show on a wet preparation topographic formations of the head, neck, back, chest, abdomen. 16. Explain the walls, borders, messages of topographic formations of the head, neck, back, chest, abdomen 17. Show the beginning, attachment of the muscles of the upper and lower extremities on a wet preparation. 18. Explain the function of the muscles of the upper and lower extremities. 19. To name in Russian and Latin and to show the topographic formations of the upper and lower extremities on a wet preparation. 20. Explain the walls, boundaries, messages of topographic formations of the upper and lower extremities.	terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional	Able to assess morphofunctional, physiological conditions	CNS. General data on the structure of the central nervous system.	Achievement Indicator-1 GPC-9	1. Development of the spinal cord. 2. Topography of the spinal cord, boundaries. 3. The external structure of the spinal cord.	1. It is correct to name and show the white and gray matter of the spinal cord, the base of the nucleus of the gray matter, the structure of the	- medical and anatomical

	competences)	and pathological processes in the human body to solve professional problems	External and internal structure of the spinal cord. Gray and white matter. Sheaths of the spinal cord.	Determines the morphofunctional, physiological states and pathological processes of the human body	4. Fixing apparatus of the spinal cord. 5. Formation of the spinal nerve. 6. Formation of a ponytail. 7. The structure of the spinal segments. 8. Segmental and suprasegmental apparatus of the spinal cord. 9. Brain cone and end thread. 10. The white matter of the spinal cord. 11. Gray matter of the spinal cord. 12. The nuclei of the posterior, anterior and lateral horns of the spinal cord. 13. Spinal cord membranes 14. The intervertebral space of the spinal cord 15. Differences in the membranes of the spinal cord and brain. 16. Blood supply to the spinal cord. 17. Age-related changes in the spinal cord. 18. The principle of formation of afferent pathways: conscious pathways of proprioceptive, exteroceptive sensitivity, unconscious pathways of proprioceptivity, their topography; 19. Topography of the descending pathways in the cord of the spinal cord;	white matter of the spinal cord, the main conducting pathways of the posterior, lateral and middle cord of the spinal cord. 2. Explain the process of forming a "ponytail". 3. Correctly name and show the details of the external structure of the spinal cord and its fixing apparatus. 4. Correctly name and show the membranes and intervertebral spaces of the spinal cord. 5. Explain the formation of arterial and venous anastomoses of the spinal cord, their significance.	terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	CNS. Overview of the brain. The brain stem. Midbrain and diencephalon.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Embryonic development of the diencephalon and midbrain. 2. Anatomy and topography of the diencephalon (thalamic region (thalamus, metathalamus, epithalamus) and hypothalamus). 3. Anatomy and topography of the third ventricle (walls, messages). 4. Anatomy and topography of the midbrain. 5. Nuclei of the midbrain. 6. Anatomy and topography of the cerebral aqueduct. 7. Age features of the diencephalon and midbrain.	1. Find on the preparation and name in Latin the structures of the diencephalon (thalamic region (thalamus, metathalamus, epithalamus) and hypothalamus). 2. Find on the preparation and name in Latin the structures of the third ventricle (walls, messages). 3. Find on the preparation and name in Latin the structures of the midbrain. 4. Find on the preparation and name in Latin the structures of the midbrain, their nuclei. 5. Find on the preparation and name in Latin the structures of the aqueduct of the brain.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	CNS. Medulla. Hind brain. IV ventricle. Rhomboid fossa.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Embryonic development of the hindbrain. 2. Topography, structure and significance of the isthmus of the rhomboid brain. 3. Topography of the bridge. 4. The external structure of the bridge. 5. The internal structure of the bridge. 6. Gray matter of the bridge (nucleus). 7. Topography of the cerebellum. 8. External structure of the cerebellum. 9. White matter of the cerebellum. 10. Gray matter of the cerebellum (nucleus) 11. Cerebral peduncles, their composition. 12. Embryonic development of the medulla oblongata. 13. Topography of the medulla oblongata. 14. External structure of the medulla oblongata (ventral surface of the medulla oblongata: furrows, pyramids, olives; dorsal surface: thin and wedge-	1. Find on the preparation and name in Latin the structures of the hindbrain. 2. Find on the preparation and name in Latin the elements of the dorsal and ventral surfaces of the bridge. 3. Find on the preparation and name the structures of the cerebellum in Latin. 4. Demonstrate the topography of the bridge cores. 5. Demonstrate the topography of the cerebellar nuclei. 6. Find on the preparation and name in Latin the structures of the medulla oblongata on the ventral surface. 7. Find on the preparation and name in Latin the structures of the medulla oblongata on the dorsal surface. 8. Find on the preparation and name in Latin the walls of the IV ventricle. 9. Find on the preparation and name in Latin the messages of the IV ventricle. 10. Find on the preparation and name the rhomboid fossa in Latin.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					shaped cords and tubercles, grooves, lateral cords). 15. Internal structure of the medulla oblongata (oliva nuclei, thin and sphenoid nuclei, cranial nerve nuclei (IX-XII pairs), internal and external arcuate fibers, loop decussation, pyramid decussation, white matter). 16. Topography of the IV ventricle. 17. Walls and messages of the IV ventricle 18. Vascular basis of the fourth ventricle. 19. Topography of the rhomboid fossa. 20. Projection of the nuclei of the cranial nerves on the rhomboid fossa (sensory, motor, vegetative). 21. Age features; 22. X-ray anatomy.	11. Find on the preparation and name in Latin the elements of the rhomboid fossa. 12. Show on the preparation and name in Latin the localization of the nuclei of the rhomboid fossa.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	CNS. Terminal brain. Olfactory brain. Pallium. Localization of functions in the cerebral cortex, lateral ventricles.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Departments of the brain; their topography in the skull. 2. Topography of the brain regions based on the brain in sagittal and horizontal sections. 3. Places of exit from the brain of 12 pairs of cranial nerves. 4. Topography, functional significance, boundaries and external structure of the cerebral hemispheres. 5. Frontal, parietal, occipital, temporal, insular and limbic lobes, their relief (sulci and gyrus) and functional significance; terminal plate and transparent septum. 6. The structure of the cerebral cortex. 7. Localization in the cerebral cortex of the centers of general sensitivity, vision, hearing and smell. 8. Formation of the cortico-spinal and cortical-nuclear (pyramidal) pathways in the cerebral cortex and their functional significance. 9. Localization in the cerebral cortex of the centers of perception and motor centers of speech and writing. 10. Development, topography, structure of the olfactory brain. limbic system. 11. Development, topography, structure of the olfactory brain. limbic system. 12. Anatomy and topography of the basal nuclei: - striatum (caudate nucleus, lenticular nucleus), - fence (claustrum), - amygdala 13. Anatomy and topography of the internal capsule. 14. Anatomy and topography of the corpus callosum. 15. Anatomy and topography of the fornix. 16. Anatomy and topography of the lateral ventricles. Their messages. 17. Age features of the basal ganglia and internal capsule, fornix, corpus callosum.	1. find and show the cerebral hemispheres, their anatomical structure, surfaces, 2. name the lobes of the brain, furrows and gyrus, show their location; find 3. find and show on the anatomical preparations of the brain the right and left hemispheres, their surfaces, correctly name them in Russian and Latin; 4. find and show on anatomical preparations of the brain a cloak or mantle, olfactory brain, white matter of the hemispheres; 5. show the location of the brain lobes on brain preparations; 6. on anatomical preparations (the brain) to identify and show the furrows and gyrus, the corpus callosum, the membranes of the brain. 7. anatomical structure of the brain in relation to function; 8. the name of the lobes, sulci, convolutions of the cerebral hemispheres in Russian and Latin; 9. localization of functions in the cerebral cortex; 10. membranes of the brain and spinal cord, outflow tracts of cerebrospinal fluid; 11. age-related features of the brain; 12. X-ray image of the cerebral hemispheres 13. find and show the structures of the olfactory brain on anatomical preparations of the brain. 14. Find on the preparation and name in Latin the structures of the basal ganglia: - striatum (caudate nucleus, lenticular nucleus), - fence, - amygdala 15. Find on the preparation and name in Latin the structures of the internal capsule. 16. Find on the preparation and name in Latin the structures of the corpus callosum. 17. Find on the preparation and name in Latin the structures of the fornix. 18. Find on the preparation and name in Latin the structures of the lateral ventricles. Their contacts.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve	CNS. Ascending tracts of the spinal cord and brain. Sheaths of the brain.	Achievement Indicator-1 GPC-9 Determines the morphofunctio	1. - classification of pathways: a) associative paths; b) commissural ways; c) projection paths; 2. the scheme of functioning of the projection pathways of the ascending direction (extraceptive and	1. draw and explain the scheme of a simple somatic reflex arc, designate its links; 2. name, draw and explain the pathways under study; 3. show on the diagram the main components of the paths: a) ways of pain and temperature sensitivity; b) ways of touch and pressure;	- medical and anatomical terminological apparatus; - simple

		professional problems		nal, physiological states and pathological processes of the human body	proprioceptive); • The path of pain and temperature sensitivity • Path of touch and pressure • visual path • auditory pathway • proprioceptive path of the cortical direction • proprioceptive pathway of the cerebellar direction a) anterior dorsal cerebellar path (Govers path) b) posterior spinal-cerebellar path (Flexiga path)	c) proprioceptive path of the cortical direction; d) proprioceptive pathway of the cerebellar direction; e) posterior spinal cerebellar tract - direct uncrossed Flexig path; f) anterior spinal cerebellar path (Govers path); g) visual path.	medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	CNS. Descending tracts of the spinal cord and brain. Sheaths of the brain.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. - classification of pathways: a) associative paths; b) commissural ways; c) projection paths; 2. - diagram of the functioning of the projection pathways of the downward direction (pyramidal and extrapyramidal). • pyramidal paths: a) ways of conscious movements b) cortical-nuclear pathway • extrapyramidal ways: a) red-nuclear-spinal cord path (Monakov's path) b) tectospinal tract c) tr. nigrospinalis d) retico-spinal path e) olivospinal path • descending motor pathways of the cerebellum	1. - draw and explain the scheme of a simple somatic reflex arc, designate its links; 2. name, draw and explain the pathways under study; 3. - show on the diagram the main components of the paths: • pyramidal paths: a) ways of conscious movements b) cortical-nuclear pathway • extrapyramidal ways: a) red-nuclear-spinal cord path (Monakov's path) b) tectospinal tract c) tr. nigrospinalis d) retico-spinal path e) olivospinal path • descending motor pathways of the cerebellum	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Sense organs. Eye. Development. Structure. Auxiliary apparatus. The conductive path of the visual analyzer. Ear. Development, building. Auditory and statokinetic analyzers. Skin. Organs of smell and taste.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. The structure of the wall of the orbit, 2. Anatomy and topography of the eyeball. 3. Shells of the eyeball. 4. The structure of the auxiliary apparatus of the eye. 5. The structure of the outer ear. 6. The structure of the middle ear. 7. The structure of the inner ear. 8. The structure of the organ of Corti. 9. Visual and auditory pathways. 10. Sources of blood supply to the organ of vision and the organ of hearing .. 11. The structure of the skin as a sensory organ. 12. The structure of the organ of taste. 13. The structure of the olfactory organ.	1. Name in Latin and show on the preparation the walls of the orbit and their components. 2. Name in Latin and show the structures of the eyeball on the preparation. 3. Name in Latin and show on the preparation of the shell of the eyeball. 4. Name in Latin and show on the preparation the elements of the auxiliary apparatus of the eye. 5. Name in Latin and show the structures of the outer ear on the preparation. 6. Name in Latin and show the structures of the middle ear on the preparation. 7. Name in Latin and show the structures of the inner ear on the preparation. 8. Draw and explain the course of the visual and auditory pathways. 9. Sources of blood supply to the organ of vision and the organ of hearing . 10. Name in Latin and show on the preparation the structures of the skin as a sensory organ. 11. Name in Latin and show on the preparation the structures of the organ of taste. 12. Name in Latin and show the organ of smell on the preparation of the structure.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General	Able to assess morphofunctional,	Endocrine glands. Development,	Achievement Indicator-1	1. Classification of the organs of the immune system. 2. Patterns of formation and topography of the organs	1. Name in Latin and show on native preparations the central and peripheral organs of the immune system.	- medical and

	professional competences)	physiological conditions and pathological processes in the human body to solve professional problems	topography, structure. Features of blood supply and innervation. Immune formations: structure, location, functions.	GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	of the immune system during ontogenesis. 3. Topography and divisions of the immune system. 4. External and internal structure of the central and peripheral organs of the immune system. 5. "T" and "B" lymphocytes, their formation, difference and circulation functions. Humoral and cellular immunity. 6. Age features of the organs of the immune system. 7. Population of "T"-lymphocytes: "T"-killers, "T"-suppressors, "T"-amplicators, "T"-helpers, "T"-effectors. 8. Blood supply and innervation of the organs of the immune system. 9. The presence in the peripheral organs of the immune system of lymphoid nodules that are at various stages of development with and without germinal light and germinal centers. 10. General characteristics of the endocrine glands and their differences from exocrine. 11. Development of the endocrine glands. Classification of endocrine glands according to developmental features (ectodermal, mesodermal, ectodermal) 12. Features of the blood supply to the endocrine glands 13. Functions of hormones and their differences from other biologically active substances. 14. Classification of the endocrine glands in relation to the anterior pituitary gland dependent (thyroid, adrenal cortex, gonads) and independent (parathyroid, epiphysis of the adrenal medulla, pancreatic islets, paraganglia) 15. The center of regulation of the functions of the endocrine glands is the hypothalamus. 16. The structure of the hypothalamic-pituitary system-hypothalamus-neurohypophysis and hypothalamus-adenohypophysis. 17. General characteristics, topography, external structure and functions of endocrine organs. 18. Know the structure of the gonads 19. Age features of the endocrine glands	Thymus, spleen, tonsils, appendix, Peyer's patches, solitary lymphoid nodules of the mucous membranes of internal organs. 2. Explain the functions of the organs of the immune system. 3. On the mucous membrane of the ileum, identify and show group lymphatic follicles - Peyer's patches. 4. On histological preparations, determine the germinal centers of lymphatic follicles - reproduction centers, light receptors. 5. Find the appendix on native preparations of the abdominal organs, determine its position and mesentery. 6. Name and show on native preparations the location of the endocrine glands: 1) pituitary 2) pineal gland 3) thyroid gland 4) adrenal gland 5) parathyroid gland 7. Explain the functions and features of the blood supply to the anterior and posterior lobes of the pituitary gland - primary and secondary capillary networks. 8. Explain the features of the functioning of the pineal, thyroid, parathyroid glands, adrenal gland, pancreas, gonads.	anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	**FINAL LESSON ON THE THEME "ANATOMY OF THE CENTRAL NERVOUS SYSTEM. SENSORS. ORGANS OF THE IMMUNE SYSTEM. ENDOCRINE GLANDS".**	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Embryonic development of the brain. 2. Topography of the brain regions based on the brain in sagittal and horizontal sections. 3. Places of exit from the brain of 12 pairs of cranial nerves. 4. Topography, functional significance, boundaries, external and internal structure of the cerebral hemispheres. 5. Topography, functional significance, boundaries, external and internal structure of the diencephalon. 6. Topography, functional significance, boundaries, external and internal structure of the midbrain. 7. Topography, functional significance, boundaries, external and internal structure of the hindbrain. 8. Topography, functional significance, boundaries,	Name in Latin and show on native preparations: 1. Structures of the cerebral hemispheres. 2. Basal nuclei 3. Vault structures 4. Structures of the corpus callosum. 5. Furrows and gyrus of the hemispheres. 6. Structures of the diencephalon. 7. Structures of the midbrain. 8. Structures of the hindbrain. 9. Structures of the medulla oblongata. 10. Shells of the brain and intershell spaces 11. Name in Latin and show the structures of the spinal cord on native preparations. 12. Draw and explain the pathways of the brain and spinal cord.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					external and internal structure of the medulla oblongata. 9. Ventricles of the brain. 10. Rhomboid fossa. 11. Blood supply to the brain. 12. Topography, structure, age features of the spinal cord. 13. Shells of the spinal cord and intershell spaces. 14. Blood supply to the spinal cord, arterial and venous anastomoses. 15. Ascending and descending pathways LYMPHATIC SYSTEM. 1. Features of the structure and topography of the lymphatic capillaries. Differences from lymphatic vessels. 2. Features of the structure and topography of the lymphatic vessels. Differences from lymphatic capillaries. 3. Features of the structure and topography of the lymph nodes. 4. Features of the structure and topography of the thoracic lymphatic duct. 5. Features of the structure and topography of the right lymphatic duct. 6. Features of the structure and topography of the jugular and subclavian trunks. 7. Lymphatic vessels and nodes of the lower limb. 8. Lymphatic vessels and visceral nodes of the pelvis. 9. Lymphatic vessels and parietal nodes of the pelvis. 10. Lymphatic vessels and visceral nodes of the abdominal cavity. 11. Lymphatic vessels and parietal nodes of the abdominal cavity. 12. Lymphatic vessels and visceral nodes of the chest cavity. 13. Lymphatic vessels and parietal nodes of the chest cavity. 14. Lymphatic vessels and nodes of the head. 15. Lymphatic vessels and nodes of the neck. 16. Lymphatic vessels and nodes of the upper limb. THE IMMUNE SYSTEM. 1. General characteristics of the immune system. 2. Features of the topography and structure of the bone marrow. 3. Features of the topography and structure of the thymus. 4. Age features of the thymus gland. 5. Features of the topography and structure of the lingual and palatine tonsils of the Pirogov-Waldeyer lymphoepithelial ring. 6. Features of the topography and structure of the pharyngeal and tubal tonsils of the Pirogov-Waldeyer lymphoepithelial ring. 7. Group lymphoid nodules of the appendix. 8. Group lymphoid nodules of the ileum.	Name in Latin and show the structures of the studied systems on native preparations: LYMPHATIC SYSTEM. 1. Lymphatic capillaries and lymphatic vessels. 2. Lymph nodes. 4. Thoracic and right lymphatic ducts. 5. Jugular and subclavian trunks. 7. Lymphatic vessels and nodes of the lower limb. 8. Lymphatic vessels, parietal and visceral nodes of the pelvis. 9. Lymphatic vessels, parietal and visceral nodes of the abdominal cavity. 10. Lymphatic vessels, parietal and visceral nodes of the chest cavity. 11. Lymphatic vessels and nodes of the head. 12. Lymphatic vessels and nodes of the neck. 13. Lymphatic vessels and nodes of the upper and lower extremities. THE IMMUNE SYSTEM. 1. Bone marrow and thymus, their components. 2. Structures of the Pirogov-Waldeyer lymphoepithelial ring. 3. Group lymphoid nodules of the appendix. 4. Group lymphoid nodules of the ileum. 5. Solitary lymphoid nodules. 6. Structures of the spleen. ENDOCRINE SYSTEM. 1. The structure of the thyroid gland. blood supply 3. The structure of the parathyroid glands. Blood supply. 5. The structure of the endocrine part of the pancreas. Blood supply. 6. The structure of the endocrine part of the testicle. Features of the blood supply 7. Features of the structure of the endocrine part of the ovary. blood supply 8. The structure of the adrenal gland. Features of the blood supply 9. The structure of the pineal gland. Features of the blood supply 10. The structure of the anterior lobe of the pituitary gland. Features of the blood supply to the pituitary gland. 11. The structure of the posterior lobe of the pituitary gland. Features of the blood supply to the pituitary gland.	

					9. Solitary lymphoid nodules. 10. Topography of the spleen. 11. External structure of the spleen. 12. Internal structure of the spleen. ENDOCRINE SYSTEM. 1. General characteristics of the endocrine glands, differences from exocrine glands. 2. General characteristics, topography and external structure of the thyroid gland. blood supply 3. General characteristics, topography and internal structure of the thyroid gland. Blood supply. 4. General characteristics, topography and structure of the parathyroid glands. Blood supply. 5. General characteristics, topography of the pancreas. Features of the structure of the endocrine part of the pancreas. 6. General characteristics, testicular topography. Features of the structure of the endocrine part of the testicle. 7. General characteristics, topography of the ovary. Features of the structure of the endocrine part of the ovary. 8. General characteristics, topography and structure of the adrenal gland. 9. General characteristics, topography and structure of the pineal gland. 10. General characteristics, topography and structure of the anterior pituitary gland. Features of the blood supply to the pituitary gland. 11. General characteristics, topography and structure of the posterior lobe of the pituitary gland. Features of the blood supply to the pituitary gland.		
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Oral cavity, pharynx. Esophagus, stomach. Small, large intestine. Development, topography, structure, relation to the peritoneum. X-ray anatomy.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Functions and principles of the structure of the digestive system. 2. The main stages of development of the digestive system 3. Departments of the digestive tract. 4. The structure of the walls of the oral cavity. 5. The structure and function of the salivary glands. 6. The structure and function of the language. 7. Structure and function of the dentoalveolar apparatus. 8. Types of physiological and pathological bites. 9. Topography of the anterior abdominal wall. 10. Topography of the pharynx, its structure and functions. 11. Components of the Waldeyer-Pirogov lymphoepithelial ring. 12. Topography of the esophagus, its structure, functions, narrowing. 13. Latin terminology of the topic. 14. Topography of the anterior abdominal wall. 15. Topography of the stomach, its structure and functions. 16. Variants of the form and pathology of the	1. Describe the organ according to the following scheme: • Latin (Greek) name; • Source of development; • Topography (holo-, skeleton-, syntopy); • External morphological data: shape, configuration, dimensions, density (consistency, mass); • Anatomical structure: parts, departments, edges, surfaces, poles, furrows; • Histological structure (structural elements of 8 lobes, segments, lobules, acini, etc.); • Function, data of intravital research methods: X-ray anatomy, computed and magnetic resonance imaging. 2. Name and show the walls of the oral cavity on the sagittal section of the head and skull. 3. Show all formations of the oral cavity on the sagittal section of the head. 4. Find the openings of the excretory ducts of the large salivary glands. 5. By characteristic features, determine the types of teeth and their belonging to the right or left half of the alveolar arch.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					stomach, depending on the type of physique. 17. Holotopy, skeletopy and syntopy of various parts of the small and large intestines. 18. Departments of the small intestine. 19. Topography, divisions and variants of the forms of the duodenum. 20. The structure of the wall of the small intestine. 21. Departments of the large intestine, their topography. 22. Anatomical and histological differences of the large intestine 23. Structure, topography and variants of the position of the appendix. Its functional significance. 24. Departments and topography of the rectum. 25. The relationship of all parts of the intestine with the visceral peritoneum.	6. Name and show on the wet preparation the sections of the pharynx, list the walls of each section and the structural formations on them (tonsils, tube roller) 7. Indicate and show the ways of communication of the pharynx with other cavities (nasal cavity, middle ear, mouth, esophagus, larynx). 8. Name the layers of the pharyngeal wall, explain the features of the mucous membrane of its various departments. 9. Name and show on the preparation the muscles of the pharynx. 10. Prepare the esophagus and show its constriction on the preparation. 11. Name and show on a wet preparation the sections of the stomach, list the walls of each section. 12. Determine the shape of the stomach from the radiograph and be able to explain the relationship between the shape of the stomach and body type. 13. List the layers of the stomach wall. 14. Name and show on the corpse (wet preparation) the sections of the small intestine. 15. Name and show on the corpse and X-ray sections of the duodenum, its relationship with the head of the pancreas. 16. Find the place of transition of the duodenum into the small intestine (duodenal-skinny bend). 17. Show on the opened preparation the longitudinal fold of the duodenal mucosa and Vater's nipple. 18. Name and show on a cross section the layers of the wall of the small intestine. 19. Explain the structural features of the mucous membrane (the presence of villi), based on the function of the small intestine. 20. Name and show on the corpse, x-ray sections of the large intestine and their topography. 21. Name and show on the preparation the external distinguishing features of the large intestine (longitudinal bands, haustra and processes of the serous membrane). 22. Find the appendix on the preparation, explain the possible options for its position and the projection of the painful point during inflammation on the abdominal wall. 23. Name and show the final section of the large intestine, show and explain the meaning of the anal sinuses (sinuses) on the opened preparation. 24. Explain the importance of lymphoid tissue (single and group follicles) in the mucous membrane of the entire gastrointestinal tract. 25. Analyze the features of each of the layers of the wall along the course of the intestine.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve	Anatomy and topography of the liver and pancreas. The miraculousness of the network of the liver.	Achievement Indicator-1 GPC-9 Determines the morphofunctio	1) Topography of the abdominal organs. 2) The structure and development of the peritoneum. 3) The course of the peritoneum. 4) The ratio of organs to the peritoneum. Projection of the abdominal organs. 5) Abdominal ligaments - liver, stomach, intestines. 6) Canals, pits, sinuses of the abdominal cavity.	1) Show on the native preparation and name in Latin the lobes of the liver, its surface. 2) Show and name in Latin the gates of the liver, the contents of the gates of the liver. 3) Show and name in Latin the ligaments of the liver. 4) Show and name the large and small omentums in Latin, explain their formation.	- medical and anatomical terminologic al apparatus; - simple

		professional problems	Anatomy and topography of the peritoneum.	nal, physiological states and pathological processes of the human body	7) Large and small gland. 8) Stuffing box, its boundaries. 9) Deepening of the small pelvis. 10) Topography of the liver, surfaces, lobes, departments and ligaments. Skeletotopy of the liver. 11) The contents of the gate of the liver. 12) Bile ducts, gallbladder, right and left hepatic, cystic and common bile ducts. 13) Features of the structure and blood supply of the liver, wonderful network of the liver, Internal structure of the liver. 14) Topography of the pancreas, relation to the peritoneum. The function and significance of the pancreas. 15) Islet part of the pancreas. 16) Relationship of the liver to other organs. Indentations of the liver. 17) The difference between the peritoneal cavity and the abdominal cavity. 18) The difference between the peritoneal cavity of men and women.	5) Show and name in Latin the inferior vena cava on the liver and explain its meaning. 6) Show and name the parts of the pancreas in Latin. 7) Show and name in Latin on the lower surface of the liver, gallbladder and ducts. 8) Show and name in Latin on the mucous membrane of the duodenum 12 Vater's papilla. 9) Show and name the large and small omentum in Latin. 10) Show and name in Latin the ligaments of the liver, the mesentery of the small and large intestines, the depressions and ligaments of the small pelvis, the sinuses and canals of the peritoneal cavity, the root of the mesentery of the small intestine, the folds of the anterior abdominal wall. 11) Show and name in Latin the stuffing box and its boundaries. 12) Show and name in Latin the round ligament of the liver, the lobes of the liver. 13) Explain the concept of "Peritoneal cavity" and "abdominal cavity"; their difference.	medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Organs of the respiratory system. Nasal cavity. Larynx.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1). The structure of the external nose and its cartilage. 2). The structure of the own nasal cavity (turbinates, nasal passages). 3). Communications of the nasal cavity and paranasal turbinates. 4). The structure of the larynx. 5). Paired and unpaired cartilages of the larynx. 6). Joint cartilage of the larynx and ligamentous apparatus. 7). Classification of the muscles of the larynx. 8) Age features of the respiratory system.	1). Show the nasal cavity and its formations on the sagittal section of the head. 2). Show the cavity of the larynx on the sagittal section of the head and name its departments. 3) Correctly position the cartilages of the larynx relative to each other. 4). Show the joints and ligaments of the larynx. 5). Show the muscles that expand the glottis. 6). Show the muscles that narrow the glottis. 7). Show the muscles that tense the vocal cord. 8) On radiographs of the organs of the respiratory system, identify and describe their anatomical structures;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Trachea, bronchi, lungs. Pleura. Mediastinum.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1) The structure of the trachea and the main bronchi. 2) The structure of the lungs. 3). The structural and functional unit of the lungs (acinus). 4). The structure of the bronchial and alveolar tree. 5). The structure of pleural leaflets. 6). The boundaries of the lungs and pleura. 7). Departments and organs of the mediastinum. 8) Age-related features of the respiratory system.	1) Show the course of the trachea 2) Show the cartilaginous elements and the membranous part of the tracheal wall 3) Show the place of division of the trachea into two main bronchi. 4) Show the root of the lung. 5) Show and name the contents of the gate of the lung. 6) Show the surfaces, lobes and slits of the right and left lungs. 7) Show the parts of the pleura and its dome. 8) Determine the boundaries of the lungs and pleura. 9) Show the mediastinum on the preparation and name its parts. 10) Identify and describe their anatomical structures on radiographs of the respiratory system organs;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes	Anatomy and topography of the kidneys, ureters, bladder and urethra.	Achievement Indicator-1 GPC-9 Determines the	1. Skeletotopy and syntopy of the organs of the urinary system (kidneys, ureters, bladder) in women and men. 2. Internal and fixing apparatus of the kidneys. 3. The structure of the nephron and the features of	1. To show the organs of the urinary system on a corpse with an open abdominal cavity. 2. Explain the skeletotopy of the kidneys. 3. Name and show the bladder and urethra and its departments on the sagittal saw of the male pelvis.	- medical and anatomical terminological apparatus;

		in the human body to solve professional problems	The course of urine.	morphofunctional, physiological states and pathological processes of the human body	blood supply to the kidneys. 4. The structure of the ureters, divisions, constrictions and relation to the peritoneum. 5. Differences in the course of the ureter in the female and male pelvis. 6. The topography of the pelvic organs in men and women. 7. Departments and structure of the walls of the bladder, relation to the peritoneum, features of the bladder triangle. 8. The structure and topography of the male and female urethra and their differences. 9. The function of the male urethra. 10. Age-related features and X-ray anatomy of the kidneys. 11. Methods of examination of the organs of the urinary system	4. Name and show the bubble triangle, the inner opening of the urethra, its departments. 5. Name and show the seminal tubercle in the prostatic part of the canal. 6. Name and show the locations of the ureteral constrictions, the ureteral departments and the area of the transition of the pelvis into the ureter, the places of the confluence of the ureters into the bladder. 7. Show the position and course of the urethra on the preparation of the female pelvis.	- simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Anatomy and topography of the male genital organs. The membranes of the testis and scrotum. The course of the seminal fluid. Male perineum.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Classification of male genitalia - external and internal. 2. The structure and function of the prostate gland, and the urethra. 3. Structure and topography of seminal vesicles. 4. The membranes of the testicle and scrotum. 5. The internal structure of the testicle-the seminal and seminal divisions. 6. Divisions and structure of the appendage of the testicle. 7. Formation and topography of the spermatic cord. 8. Ways of semen excretion. 9. Muscles and fascia of the male perineum. 10. The structure of the external genital organ in men. 11. The course of the peritoneum in the pelvis. The relation of the peritoneum to the organs.	1. On the whole corpse, organ complexes and sagittal saws of the pelvis, show and name the external and internal male genitalia. 2. Name and show the perineal muscles on native preparations. 3. Explain the differences between the male and female perineum.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Anatomy and topography of female genital organs. Women's perineum.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Classification of female genitalia - external and internal. 2. The structure and topography of the uterus. 3. Structure and topography of the ovary. 4. Structure and topography of the fallopian tubes. 5. The course of the peritoneum in the pelvis. The relation of the peritoneum to the organs. 6. Peritoneal ligaments of the uterus and ovary. 7. Female external genitalia. 8. The structure of the female perineum.	1. On the whole corpse, organ complexes and sagittal saws of the pelvis, show and name the external and internal female genitalia. 3. Name and show the perineal muscles on native preparations. 4. Explain the differences between the male and female perineum.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Report on preparations of the digestive, respiratory, urinary and reproductive systems.	Achievement Indicator-1 GPC-9 Determines the morphofunctional,	1. The structure and topography of the digestive system. 2. Knowledge of Latin terminology. 3. Features of the structure of the liver lobule 4. Features of the peritoneum stroke. 5. Topography, structure and age features of the respiratory system. X - ray anatomy	1. Give a description of the organ according to the following scheme: 2. Latin (Greek) name; 3. The source of development; 4. Topography (holo-, skeleto-, syntopia); 5. External morphological data: shape, configuration, dimensions, density (consistency, mass);	- medical and anatomical terminological apparatus; - simple

				physiological states and pathological processes of the human body	6. Topography, structure and age features of the urinary system organs. X - ray anatomy 7. Topography, structure and age features of the organs of the male reproductive system X-ray anatomy 8. Topography, structure and age features of the female reproductive system. X - ray anatomy	6. Anatomical structure: parts, sections, edges, surfaces, poles, furrows; 7. Histological structure (structural elements 8 lobes, segments, lobules, acinuses, etc.); 8. Function, data of lifetime research methods: X-ray anatomy, computer and magnetic resonance imaging. 9. Name and show the structures of the digestive system organs on a wet preparation 10. Draw and explain the schemes of the course of the peritoneum, the structure of the liver lobule, the ways of excretion of bile. 11. Name in Latin and show on the native preparation both individual organs of the respiratory system and their structural elements 12. Name in Latin and show on the native preparation both individual organs of the urinary system and their structural elements 13. To name in Latin and show on the native preparation both individual organs of the male reproductive system and their structural elements 14. To name in Latin and show on the native preparation both individual organs of the female reproductive system and their structural elements	medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Сердце. Топография, строение и функции. Сосуды и нервы сердца. Перикард. Круги кровообращения. Особенности кровообращения плода.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. The structure of the cardiovascular system and circulatory circles. 2. The structure and topography of the heart. 3. Boundaries of the heart and skeletotopy of its departments and valves. 4. The structure of the connective tissue skeleton and individual layers of the heart wall. 5. Features of the structure of the ventricular and atrial myocardium. Their difference. 6. Circulatory circles: small pulmonary and large arterial. 7. The structure of the conducting system of the heart and localization of its structures 8. Blood supply to the heart wall, venous blood outflow routes and topographic relationships of arteries and veins of the heart. 9. The structure of the pericardium. Fibrous pericardium and serous pericardium, their visceral and parietal plates. 10. Borders, cavity and sinuses of the pericardium. 11. Mediastinum and its departments.	1. Name and show the boundaries of the heart on the corpse. 2. Name and show the departments, surfaces and grooves of the heart. 3. Name and show the heart chambers, septum, openings and valve apparatus. 4. Name and show the oval fossa, ears, comb and papillary muscles and vessels of the base of the heart. 5. Name and show the layers of the heart (endocardium, myocardium, epicardium) on the native preparation. 6. To name in Latin and show the coronary arteries on the drug. 7. Call in Latin and show the veins of the heart on the preparation. 8. Find and show the departments and cavities of the pericardium, as well as its sinuses (transverse and oblique). 9. Draw and explain the diagram of the conducting system of the heart.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Arteries of the chest and abdomen. Their branches. Areas of blood supply.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of	1) The structure and topography of the aorta, and its departments. 2) Branches of the aortic arch. 3) The topography of the common carotid artery and the place of its division into the external and internal carotid arteries. 4) Topography, course and branches of the external carotid artery. 5) Terminal branches of the external carotid artery. 6) Topography and course of the internal carotid artery. 7) Classification of branches of the internal carotid	1) Find and show the aortic divisions and its branches on the prepared corpse and native preparation. 2) Name and show the branches of the aortic arch: the brachiocephalic trunk, the left common carotid and subclavian arteries. 3) Name and show the branches of the brachiocephalic trunk: the right common carotid and subclavian arteries. 4) Show the place of division of the common carotid artery into external and internal. 5) Find and show the external carotid artery and its branches on a wet preparation.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

				the human body	artery (ocular artery and brain arteries). 8) Blood supply to the brain and the formation of a large arterial circle (Willis circle). 9) Topography of the course and branches of the subclavian artery before entering the interstitial gap, in the gap itself and at the exit from it) 10) Aortic divisions. 11) Skeletotopy of the thoracic part of the aorta. 12) Topography of the parietal branches of the thoracic part of the aorta, their areas of blood supply. 13) Topography of the visceral branches of the thoracic part of the aorta, their areas of blood supply. 14) Skeletotopy of the abdominal part of the aorta. 15) Topography of the parietal branches of the abdominal part of the aorta. 16) Topography, course and area of blood supply of paired visceral branches of the abdominal part of the aorta. 17) Topography, course and area of blood supply of the unpaired visceral branches of the abdominal part of the aorta.	6) Identify and show the internal carotid artery and its branches on a wet preparation. 7) Show the boundaries of the subclavian artery. 8) Name and show the branches of the subclavian artery before entering the interstitial space (vertebral artery, internal thoracic artery and the neck trunk). 9) Name and show the branches of the subclavian artery in the interstitial space (rib - cervical trunk). 10) Name and show the branches of the subclavian artery at the exit from the interstitial space (transverse artery of the neck). 11) Show on the basis of the brain the arteries involved in the formation of the arterial circle of the large brain (Willis circle) 12) Find and show the aortic divisions on the corpse and native preparations. 13) Find and show the place of transition of the thoracic part of the aorta to the abdominal. 14) Determine the sources of blood supply to the organs and walls of the thoracic and abdominal cavities. 15) Find and show on the drug the place of departure of the common iliac artery from the aorta (aortic bifurcation).	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Pelvic arteries. Their branches. Areas of blood supply.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Skeletotopy of the common iliac artery and its branches. 2. Topography and branches of the external iliac artery. 3. Topography of the internal iliac artery, its divisions and branches.	1. Find and show on the drug the place of departure of the common iliac artery from the aorta (aortic bifurcation). 2. Show the place of division of the common iliac artery into internal and external. 3. Show the branches of the external and internal iliac arteries. 4. Determine the sources of blood supply to the walls and pelvic organs.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Veins of the chest, abdomen and pelvis. Porto-caval and cava-caval anastomoses.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. The roots of the superior vena cava. 2. The brachiocephalic vein and its tributaries. 3. Formation, topography and course of the internal jugular vein. 4. Intracranial and extracranial tributaries of the internal jugular vein. 5. Outflow of venous blood from the cranial cavity. 6. Topography of the external jugular vein. 7. Topography of the anterior jugular vein. 8. Formation of the jugular venous arch. 9. Formation, topography and course of unpaired and semi-paired veins. Their tributaries. 10. Topography and course of the inferior vena cava. 11. Tributaries of the inferior vena cava (paired and parietal and visceral) 12. Roots, course and topography of the portal vein. 13. Tributaries of the portal vein.	1. Name and show the superior vena cava and its roots (the brachiocephalic and subclavian veins) on a wet preparation. 2. Find and show the internal jugular vein on the native preparation. 3. Find and show an unpaired vein to the right of the spinal column. Its tributaries and the place of confluence with the superior vena cava 4. Find and show to the left of the vertebral column the semi-paired vein, its tributaries and the place of its confluence with the unpaired vein. 5. Find and show on the preparation an additional semi-paired vein and the place of its confluence with the semi-paired vein. 6. Name and show the inferior vena cava and its roots (iliac veins) on a wet preparation. 7. Find and show paired parietal tributaries of the inferior vena cava on the corpse.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

						8. Name and show paired visceral tributaries of the inferior vena cava on the corpse. 9. Find the portal vein and its tributaries on the corpse (splenic, upper and lower mesenteric veins.)	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Lymphatic vessels, ducts and nodes of the chest, abdomen and pelvis.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Features of the structure and topography of the thoracic lymphatic duct. 2. Features of the structure and topography of the right lymphatic duct. 3. Features of the structure and topography of the jugular and subclavian trunks. 4. Lymphatic vessels and visceral nodes of the pelvis. 5. Lymphatic vessels and parietal nodes of the pelvis. 6. Lymphatic vessels and visceral nodes of the abdominal cavity. 7. Lymphatic vessels and parietal nodes of the abdominal cavity. 8. Lymphatic vessels and visceral nodes of the thoracic cavity. 9. Lymphatic vessels and parietal nodes of the thoracic cavity.	1. To name in Latin and show the structures of the studied systems on native preparations: 2. Lymphatic capillaries and lymphatic vessels. 3. Lymph nodes. 4. Thoracic and right lymphatic ducts. 5. Jugular and subclavian trunks. 6. Lymphatic vessels, parietal and visceral nodes of the pelvis. 7. Lymphatic vessels, parietal and visceral nodes of the abdominal cavity. 8. Lymphatic vessels, parietal and visceral nodes of the thoracic cavity.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Autonomous and somatic nerves of the chest, abdomen and pelvis. Sympathetic trunk. Thoracic and abdominal parts of the vagus nerve. The sacral department of the parasympathetic system. Autonomous plexuses of the chest, abdomen and	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. General characteristics of the autonomic nervous system and its divisions, its differences from the somatic 2. Anatomical structure of the departments of the autonomic nervous system. 3. The structure of the sympathetic division of the autonomic nervous system, central and peripheral divisions: the nucleus of the great horn, the sympathetic trunk, ganglia 1 and 2 pairs of plexuses. 4. The structure of the parasympathetic division of the autonomic nervous system, central and peripheral divisions 5. Differences between the sympathetic department and the parasympathetic department. 6. Vegetative innervation of the organs of the head, neck, thoracic and abdominal cavity, pelvis. 7. Topography of the vagus nerve exit (X pair) at the base of the brain and from the cranial cavity. 8. Topography of the vagus nerve nuclei (X pair) in the brainstem. 9. Topography of the course of the head of the vagus nerve (X pair). 10. Branches of the head of the vagus nerve (X pair) and the area of innervation. 11. Topography of the course of the cervical vagus nerve (X pair). 12. Branches of the cervical vagus nerve (X pair) and the area of innervation. 13. Topography of the course of the thoracic vagus nerve (X pair). 14. Branches of the thoracic vagus nerve (X pair) and the area of innervation. 15. Topography of the course of the abdominal vagus nerve (X pair). 16. Branches of the abdominal part of the vagus nerve	1. Explain the functions of the autonomic nervous system and its differences from the somatic. 2. Draw a reflex arc of the somatic and autonomic nervous system. 3. Show the sympathetic trunk and its divisions on the cadaver material, and name its branches. 4. Name and show the vagus nerve and its departments on the native preparation. 5. Show a diamond-shaped fossa and a projection of parasympathetic nuclei, cranial nerves on the preparation. 6. Show the large and small abdominal nerves on the cadaveric material. 7. Show the projection of the accessory nucleus on the section of the midbrain. 8. The diagrams and tables show the departments of the autonomic nervous system and explain their functions, structural features and location. 9. Show and name in Latin the trunk of the vagus nerve at the base of the brain, its exit from the cranial cavity. 10. Name in Latin and show the localization of the vagus nerve nuclei on the diagram of the rhomboid fossa. 11. Explain on a native preparation the topography of the vagus nerve course in the neck, thoracic and abdominal cavities. 12. To name in Latin and show on the native preparation the organs topographically connected by the course and innervation of the main trunks of the vagus nerve, as well as the neurovascular complexes, which include the vagus nerve or its branches. 13. Show on a wet preparation and name in Latin the branches of the brain, cervical, thoracic and abdominal sections of the vagus nerve (X pair).	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					(X pair) and the area of innervation.		
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Сосуды верхней и нижней конечностей.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Topography of the axillary artery as part of the neurovascular bundle. 2. The branches of the axillary artery correspond to three departments. 3. Anastomoses with branches of the subclavian artery. 4. Topography of the brachial artery as part of the neurovascular bundle. 5. Topography and course of the lateral branches of the brachial artery. 6. The terminal branches of the brachial artery (Their topography, course and branches). 7. Branches of the radial artery in the area of the hand. 8. Branches of the ulnar artery in the hand area. 9. Formation of the superficial palmar arch and its branches. 10. Formation of a deep palmar arch and its branches. 11. The topography of the femoral artery as part of the neurovascular bundle. 12. Topography and course of the proximal branches of the femoral artery. 13. The deep artery of the thigh and its branches. 14. Topography, course and branches of the popliteal artery. 15. Topography, course and branches of the anterior tibial artery. 16. Topography, course and branches of the posterior tibial artery. 17. The arched and dorsal arteries of the foot with the formation of the dorsal arterial arch. 18. Terminal branches of the posterior tibial artery with the formation of the plantar arterial arch. 19. Branches of the dorsal and plantar arterial arches. 20. Topography and tributaries of the deep veins of the upper limb 21. Topography and tributaries of the subcutaneous veins of the upper limb 22. Topography and tributaries of the deep veins of the lower limb 23. Topography and tributaries of subcutaneous veins of the lower extremity	1. Show the axillary artery and its branches on a wet preparation 2. Name and show the brachial artery and its branches on the preparation. 3. Name and show the final branches of the brachial artery (ulnar and radial) on the preparation. 4. Show the topography of the radial artery in the lower third of the forearm. 5. Show the topography of the ulnar artery in the lower third of the forearm. 6. Show the superficial arterial arch and its branches. 7. Show the deep arterial arch and its branches. 8. Explain the blood supply to the shoulder, elbow and wrist joints. 9. Name and show the femoral artery and its branches on the drug. 10. Name and show the popliteal artery and its branches on the drug. 11. Name and show the anterior tibial artery and its branches on the preparation. 12. Name and show the posterior tibial artery and its branches on the preparation. 13. Show the superficial and plantar arterial arches on the preparation. Explain their education. 14. Explain the blood supply to the hip, knee and ankle joints 15. Name and show on the preparation the superficial and deep veins of the upper limb 16. Name and show on the preparation the superficial and deep veins of the lower limb	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Nerves of the upper and lower extremities.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human	1. Formation and topography of the brachial plexus. 2. Short branches of the brachial plexus, the topography of the course and the area of innervation. 3. Long branches of the brachial plexus 4. Musculocutaneous nerve, the topography of the course and the area of innervation. 5. Median nerve, stroke topography and innervation area. 6. The radial nerve, the topography of the course and the area of innervation. 7. Medial cutaneous nerve of the shoulder and medial cutaneous nerve of the forearm, the topography of	1. Show on the native preparation and name the brachial plexus in Latin. 2. Show on the native preparation and name in Latin the short branches of the brachial plexus. 3. Show on the native preparation and name in Latin the long branches of the brachial plexus. 4. Explain and show on the preparation the skeletotopy of the spinal cord segments involved in the formation of the lumbar and sacral plexuses; 5. Name in Latin and show the branches of the lumbar plexus on the preparation; 6. Explain the formation of the lumbar plexus; 7. Show on the drug and explain the areas of skin	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

				body	the course and the area of innervation. 8. The ulnar nerve, the topography of the course and the area of innervation. 9. Innervation of the brush skin. 10. Formation of the lumbar plexus. 11. Topography and branches of the lumbar plexus. 12. The topography of the course and the area of innervation of the iliac-submandibular nerve. 13. The topography of the course and the area of innervation of the ilio-inguinal nerve. 14. The topography of the course and the area of innervation of the femoral-genital nerve. 15. The topography of the course and the area of innervation of the lateral cutaneous nerve of the thigh. 16. The topography of the stroke and the area of innervation of the locking nerve. 17. The topography of the course and the area of innervation of the femoral nerve. 18. Formation of the sacral plexus. 19. Topography and branches of the sacral plexus. 20. The topography of the course and the area of innervation of the short branches of the sacral plexus 21. The topography of the course and the area of innervation of the posterior cutaneous nerve of the thigh. 22. The topography of the stroke and the area of innervation of the sciatic nerve. 23. Topography of the course, branches and the area of innervation of the tibial nerve. 24. Formation, topography, branches of the genital and coccygeal plexuses.	innervation by branches of the lumbar plexus; 8. Explain the formation of the sacral, genital and coccygeal plexuses; 9. Show on the preparation and explain the areas of skin innervation by branches of the sacral, genital and coccygeal plexuses;	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	REPORT ON THE VESSELS AND NERVES OF THE CHEST, ABDOMEN, UPPER AND LOWER EXTREMITIES.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Topography, structure, blood supply of the heart. 2. Topography, structure of the aorta and its branches. 3. Topography, structure of the upper and lower hollow veins and their tributaries. 4. Topography, structure of the portal vein and its tributaries. 5. Topography, structure of arteries and veins of the head and neck. 6. Topography, structure of arteries and veins of the upper and lower extremities. 7. Blood supply to the organs of the head, neck, thoracic and abdominal cavities. 8. Features of blood supply to the liver and kidneys – be able to draw diagrams. 9. Arterial and venous anastomoses. 10. Features of fetal blood circulation. 11. The topography of the course, localization of the nuclei, the area of innervation of the vagus nerve 12. Short branches of the brachial plexus. 13. Innervation of the thigh skin. 14. Median nerve, its topography, branching area. 15. Innervation of the muscles of the anterior surface of the lower leg.	To name in Latin and show elements on a wet preparation: 1. Topography, structure, blood supply of the heart. 2. Topography, structure of the aorta and its branches. 3. Topography, structure of the upper and lower hollow veins and their tributaries. 4. Topography, structure of the portal vein and its tributaries. 5. Topography, structure of arteries and veins of the head and neck. 6. Topography, structure of arteries and veins of the upper and lower extremities. 7. Wandering - the place of exit at the base of the brain, from the cranial cavity, localization of nuclei in the brain stem, branches, the area of innervation 8. To name in Latin and show the structures of spinal nerves on the drug. 9. Be able to draw schemes of reflex arcs – somatic and vegetative.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					16. Shoulder muscles, their innervation. 17. Topography of the sciatic nerve. 18. Innervation of the muscles of the hand. 19. Muscles of the posterior thigh group, their innervation. 20. Muscles of the anterior surface of the forearm, their innervation. 21. Innervation of the anterior muscle group of the lower leg. 22. Long branches of the brachial plexus. 23. Short branches of the sacral plexus, the branching area. 24. Muscles of the posterior shoulder group, their innervation. 25. Innervation of the thigh skin. 26. Axillary nerve, innervation zones. 27. Sympathetic nervous system. 28. Cervical plexus, motor branches. 29. Innervation of the muscles of the anterior abdominal wall. 30. Muscles of the anterior surface of the thigh, their innervation. 31. The muscles of the anterior shoulder group, their innervation. 32. The locking nerve, its topography, innervation zones. 33. Radial nerve, branching area. 34. Spinal nerve, its structure, branches, formation of plexuses. 35. Innervation of the diaphragm. 36. Borderline sympathetic trunk, structure and branches. 37. Ulnar nerve, branching area. 38. Parasympathetic division of the autonomic nervous system. 39. Innervation of the forearm skin. 40. Features of the structure of the autonomic and somatic nervous system. 41. Innervation of the foot muscles. 42. Cutaneous branches of the cervical plexus. 43. Short branches of the sacral plexus. 44. Muscles of the posterior shoulder group, their innervation. 45. Short branches of the sacral plexus, branching area. 46. Long branches of the brachial plexus. 47. Innervation of the thigh skin.		
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Development of the skull. The bones of the cerebral skull. Bones of the facial skull.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological	1. Anatomical structure of the bones of the cerebral part of the skull in relation to the function; 2. The name of anatomical formations of the bones of the cerebral skull in Russian and Latin; 3. Sources and course of development, the most common anomalies of bone development, 4. Topographic and anatomical relationships of the	1. To find and show on anatomical preparations of the bones of the cerebral skull their parts, details of the structure, correctly call them in Russian and Latin; 2. Determine the position of the bones of the cerebral skull on the skull, be able to determine their topographic relationships; 3. To identify and describe their anatomical structures on	- medical and anatomical terminological apparatus; - simple medical tools –

				states and pathological processes of the human body	bones of the cerebral parts of the skull. 5. The structure and topography of the bones forming the cerebral part of the skull.	anatomical preparations (isolated bones); 4. Palpate the main bone landmarks of the studied bones on a person.	scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Temporal bone. The sphenoid bone.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Anatomical structure of the bones of the facial skull in relation to the function; 2. The name of the anatomical formations of the bones of the facial skull in Russian and Latin; 3. The structure and topography of the bones forming the facial part of the skull. 4. Structure and topography of the temporal bone; 5. Temporal bone channels, walls, message, meaning. 6. The structure of the upper jaw. 7. The structure of the lower jaw. 8. The structure of the hyoid bone 9. Topographic and anatomical relationships of the bones of the cerebral and facial parts of the skull. 10. Sources and course of development, the most common anomalies of bone development.	1) To find and show on anatomical preparations of the bones of the facial skull their parts, details of the structure, correctly call them in Russian and Latin; 2) Determine the position of the facial bones on the skull, be able to determine their topographic relationships; 3) To identify and describe their anatomical structures on anatomical preparations (isolated bones); 4) Palpate the main bone landmarks of the studied bones on a person.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	The skull as a whole. Joints of the skull bones.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Features of the structure of individual bones of the cerebral and facial skull in connection with their development and functions. 2. Topography of the skull: the arch of the skull, the outer and inner bases of the skull. 3. Anterior, middle and posterior cranial fossa, eye socket, nasal cavity; bone base of the oral cavity; temporal, suspensory and pterygoid-palatine fossa. Their walls, messages, meaning. 4. Paranasal sinuses, structure, topography, meaning. 5. The structure of the temporomandibular joint.	To name and show the following anatomical formations on preparations and visual aids: 1) the boundary between the brain and the facial skull; 2) sutures: coronal, sagittal, lambdoid, scaly; 3) wedge- occipital synchondrosis; 4) the eye socket; 5) lower orbital slit; 6) upper orbital slit; 7) visual channel; 8) front and rear lattice openings; 9) nasolacrimal canal; 10) temporal and suspensory fossa; 11) pterygoid-palatine fossa; 12) wedge-palatine opening; 13) round hole; 14) pterygoid canal; 15) large palatine canal; 16) the outer base of the skull; 17) bone palate; 18) choans; 19) bone septum of the nose; 20) jugular opening; 21) torn hole; 22) muscular-tubal canal; 23) external carotid opening; 24) awl-mastoid opening 25) large occipital opening; 26) hypoglossal nerve canal;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

						27) condyle canal or fossa; 28) the inner surface of the base of the skull; 29) anterior, middle and posterior cranial fossa; 30) cock's comb; 31) perforated plate of the latticed bone; 32) internal auditory orifice; 33) inner ear canal; 34) furrows of the upper sagittal, transverse, occipital, sigmoid, upper and lower stony sinuses; 35) nasal cavity; 36) upper nasal passage; 37) middle nasal passage; 38) lower nasal passage; 39) frontal, maxillary, sphenoid sinuses; 40) mastoid process; 41) fontanelles: anterior, posterior, wedge-shaped, mastoid.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Muscles of the head. Fascia of the head. Fiber spaces.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1) The development of the muscles of the head. 2) Features of the structure and topography of the masticatory muscles, their origin, attachment, function. 3) Features of the structure and topography of facial muscles. Their classification, the beginning of attachment and functions. 4) Fascia of the head. 5) Cellular spaces of the head.	1) Show the masticatory muscles of the head on the dummy and wet preparation and explain their function 2) Show the mimic muscles of the head on the dummy and wet preparation and explain their function. 3) List the fascia of the head and their functional significance. 4) Show the cellular spaces of the head on the dummy and wet preparation.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Neck muscles. Fascia of the neck. Fiber spaces.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Neck borders. 2. Classification of neck muscles. 2. Structure, topography and function of the superficial muscles of the neck. 3. Structure, topography and function of the supra-lingual neck muscle group. 4. Structure, topography and function of the sublingual group of neck muscles. 5. Structure, topography and function of deep neck muscles. 6. Neck triangles. 7. Cellular spaces of the neck.. 8. Fascia of the neck.	1) Show the areas and triangles of the neck on the dummy and wet preparation. 2) Name and show the superficial neck muscles on the dummy and wet preparation and explain their function 3) Name and show the deep neck muscles on the dummy and wet preparation and explain their function. 4) List and explain the functional significance of the neck fascia. 5) Explain the location of the cellular spaces of the neck and their functional significance.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve	REPORT ON THE TOPIC: "BONES AND MUSCLES OF THE HEAD AND NECK"	Achievement Indicator-1 GPC-9 Determines the morphofunctio	1. Phylogeny and ontogenesis of the skull. 2. The most common abnormalities of bone development, 3. Anatomical structure of individual skull bones, it is correct to call them in Russian and Latin; 4. Topographic formations of the skull, their walls, contents, messages.	1. To show anatomical formations, their parts, details of the structure on the skull preparations, individual skull bones, dummies, correctly call them in Russian and Latin; 1. To identify and describe their anatomical structures and topographic features on radiographs of the skull bones;	- medical and anatomical terminological apparatus; - simple

		professional problems		nal, physiological states and pathological processes of the human body	5. Classification of neck muscles. 6. Classification of the muscles of the head. 7. The beginning, attachment, functions of the neck muscles. 8. The beginning, attachment, functions of the muscles of the head. 9. Fascia and interfacial spaces of the head 10. Fascia and interfacial spaces of the neck 11. Fascia and interfacial spaces of the head. 12. Topographic formations of the neck. Neck Triangles 13. Topographic formations of the head.	2. Possess a medical-anatomical conceptual apparatus; 3. Palpate the main bone landmarks of the studied bones on a person. 2. Show the beginning, attachment of the muscles of the head and neck on a wet preparation. 1. Explain the function of the muscles of the head, neck. 2. To name in Russian and Latin languages and to show topographic formations of the head and neck on a wet preparation. 3. Explain the walls, borders, messages of topographic formations of the head, neck.	medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Mouth, mouth development. Organs of the oral cavity. Throat. Teeth. Their structure. Dental formulas. Signs of teeth.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Functions and principles of the structure of the digestive system. 2. The main stages of development of the digestive system 3. Departments of the digestive tract. 4. The structure of the walls of the oral cavity. 5. The structure and function of the salivary glands. 6. The structure and function of the language. 7. Structure and function of the dental apparatus. 8. Types of physiological and pathological bites. 9. Topography of the pharynx, its structure and functions. 10. Components of the Waldeyer-Pirogov lymphoepithelial ring. 11. The structure of the external nose and its cartilages. 12. The structure of the nasal cavity (nasal concha, nasal passages). 13. Messages of the nasal cavity and paranasal shells. 14. The structure of the laryngeal cavity. 15. Paired and unpaired cartilages of the larynx. 16. Connection of laryngeal cartilage and ligamentous apparatus. 17. Classification of laryngeal muscles.	Give a description of the organ according to the following scheme: • Latin (Greek) name; • source of development; • topography (holo-,skeleto-,syntopia); • external morphological data: shape, configuration, dimensions, density (consistency, mass); • anatomical structure: parts, sections, edges, surfaces, poles, furrows; • histological structure (structural elements of 8 lobes, segments, lobules, acinuses, etc.) • function, data from lifetime research methods: X-ray anatomy, computer and magnetic resonance imaging. 1. Name and show the walls of the oral cavity on the sagittal cut of the head and skull. 2. Show all the formations of the oral cavity on the sagittal cut of the head. 3. Find the openings of the excretory ducts of large salivary glands. 4. By characteristic features, determine the types of teeth and their belonging to the right or left half of the alveolar arch. 5. Name and show the pharyngeal sections on a wet preparation, list the walls of each department and the structural formations on them (tonsils, tube roller) 6. Indicate and show the ways of communication of the pharynx with other cavities (the cavity of the nose, middle ear, mouth, esophagus, larynx). 7. Name the layers of the pharyngeal wall, explain the features of the mucous membrane of its different departments. 8. Name and prepare the pharyngeal muscles. 9. Show the nasal cavity and its formation on the sagittal cut of the head. 10. Show the laryngeal cavity on the sagittal cut of the head and name its departments.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

						11. Correctly position the laryngeal cartilages relative to each other. 12. Show the joints and ligaments of the larynx. 13. Show the muscles that expand the glottis. 14. Show the muscles that constrict the glottis. 15. Show the muscles straining the vocal cord.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Incisors, fangs. Large and small molars. Baby teeth. The timing of the change of teeth. Maxillary segments. Articulation, occlusion, bite. The dental system as a whole. Dental X-ray anatomy.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. General characteristics of the development of teeth in phylogeny, homodont (one form) and heterodont systems (different tooth shape). 2. Polyphiodont type of teeth (private change of teeth) and difiodont type (one-time change of teeth). 3. The structure and stages of development of teeth in humans: *1 stage - the laying of teeth and their rudiments - the formation of a dental plate, enamel organs and papillae. * 2 stage - formation of the dental sac and differentiation of dental rudiments. *3 stage - the formation of teeth, the formation of dentin, enamel and pulp of the tooth. 4. Features of the development of the tooth root - the formation of the root epithelial vagina, cementoblasts and periodontal. 5. The structure of the chewing speech apparatus – 6. solid support - facial skull and mandibular joint; 7. chewing muscles. 8. Sections of teeth - root, neck, crown, cavity and pulp of teeth. 9. Clinical root and clinical crown: dentin, enamel, cement. The general structure and classification of teeth - incisors, canines, premolars and molars. 10. The structure of the periodontal and periodontal. 11. Teeth fixation and supporting apparatus. 12. Surface crowns of teeth. 13. Dental arches (rows) and occlusion of teeth. The antagonists of the teeth - the main and additional - the dental formula. 14. Signs of teeth - the angle of the crown, the curvature of the enamel, crown and root. 15. Composition and structure of the maxillary segments of the upper and lower jaws. 16. General and individual characteristics of the teeth of the upper and lower jaws. 17. General characteristics and structural features of milk teeth - 2, 1, 0, 2. 18. The timing of teething. 19. The structure of the functional system of teeth. 20. The term and "concepts" - "articulation", occlusion and occlusions. 21. Types of physiological bites - orthognathia, progenia, biprognathia, straight. 22. Structure and fixation of the root.	1. Explain the stages of development of teeth in humans. 2. Name and show functional groups of teeth. 3. Explain the structure of periodontal and periodontal. 4. Name and show the articular parts of the teeth on the preparation. 5. Name and show the surfaces of the dental crown. 6. Name and show dental arches and maxillary segments. 7. Name and demonstrate physiological and pathological bites on the preparations. 8. To name and show the characteristic signs of teeth, to determine their group affiliation. 9. Explain the differences between permanent and milk teeth. 10. Write the dental formula of milk and permanent teeth. 11. Distinguish the teeth of the upper and lower jaws.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional	Able to assess morphofunctional, physiological conditions	Vessels of the head and neck. Common carotid artery. External carotid	Achievement Indicator-1 GPC-9	1) The topography of the common carotid artery and the place of its division into the external and internal carotid arteries.	1). Find and show the aortic divisions and its branches on the prepared corpse and native preparation. 2. Name and show the branches of the aortic arch: the	- medical and anatomical

	competences)	and pathological processes in the human body to solve professional problems	artery. Internal carotid artery. Their topography, parts, branches, areas of blood supply. Subclavian artery. Topography, branches, area of blood supply. Extra-systemic and intra-systemic anastomoses of the arteries of the head and neck. X-ray anatomy of the arteries of the head.	Determines the morphofunctional, physiological states and pathological processes of the human body	2) Topography, course and branches of the external carotid artery. 3) Terminal branches of the external carotid artery. 4) Topography and course of the internal carotid artery. 5) Classification of branches of the internal carotid artery (ocular artery and brain arteries). 6) Blood supply to the brain and the formation of a large arterial circle (Willis circle). 7) Topography of the course and branches of the subclavian artery before entering the interstitial gap, in the gap itself and at the exit from it) 8) Non-systemic and intra-systemic anastomoses of the arteries of the head and neck. 9) X-ray anatomy of the arteries of the head.	brachiocephalic trunk, the left common carotid and subclavian arteries. 3). Name and show the branches of the brachiocephalic trunk: the right common carotid and subclavian arteries. 4). Show the place of division of the common carotid artery into external and internal. 5). Find and show the external carotid artery and its branches on a wet preparation. 6). Identify and show the internal carotid artery and its branches on a wet preparation. 7). Show the boundaries of the subclavian artery. 8). Name and show the branches of the subclavian artery before entering the intervertebral interval (vertebral artery, internal thoracic artery and thyroid trunk). 8). Name and show the branches of the subclavian artery in the interstitial space (costal - cervical trunk). 9). Name and show the branches of the subclavian artery at the exit from the interstitial space (transverse neck artery). 10). To show on the basis of the brain the arteries involved in the formation of the arterial circle of the large brain (Willis circle)	terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Veins and venous formations of the cerebral part of the head. Sinuses of the dura mater. Diploic and emissary veins. Veins of the cranial vault, eye sockets. Their tributaries, anastomoses, topography. Deep and superficial veins of the face and neck. The submandibular vein, the facial vein. Pterygoid venous plexus. Topography, tributaries, anastomoses. The superficial veins of the neck are external and anterior jugular. Internal jugular and subclavian veins.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Tributaries of the superior vena cava. 2. The brachiocephalic vein and its tributaries. 3. Topography and tributaries of the subclavian vein. 4. Formation, topography and course of the internal jugular vein. 5. Intracranial and extracranial tributaries of the internal jugular vein. 6. Topography of the external jugular vein and its tributaries. 7. Topography of the anterior jugular vein. 8. Formation of the jugular venous arch. 9. Sinuses of the dura mater. 10. Location and significance of diploic veins. 11. Location and significance of the emissary veins. 12. Outflow of venous blood from the cranial cavity. 13. Tributaries, course and topography of the mandibular vein. 14. Tributaries, course and topography of the facial vein. 15. Classification and structure of lymph nodes of the head and neck. 16. Structure and functions of the structural elements of the lymphatic system; 17. Lymph outflow routes from various areas of the head (frontal, parietal, temporal, occipital, lower temporal region) and neck (anterior neck region, sternocleidomastoid, lateral neck region, posterior	1. Name and show large venous trunks on a wet preparation (superior vena cava, brachiocephalic, subclavian, internal jugular veins). 2. Find and show the jugular angle on the native drug 3. Explain the anastomoses and venous plexuses of the neck and head (jugular, pterygoid). Their meaning. 4. Name the ways of venous blood outflow from the cranial cavity and the value of the sinuses 5. Explain the connection of intracranial and extracranial veins. 6. Explain the meaning of emissary and diploic veins. 7. Name and show the external and anterior jugular veins on a wet preparation. 8. Name the tributaries of the external and anterior jugular veins. 9. Show the location of the jugular arch. 10. Explain the structure of the lymphatic vessels of the head and neck. 11. Explain the lymph outflow from the organs of the head and neck. 12. Name and show the jugular angles on the native preparation (this is the confluence of the internal jugular and subclavian veins). 13. Explain the topography of the cervical thoracic lymph duct and its significance. 14. Show the superficial and deep lymph nodes of the head and neck.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

			Tributaries, anastomoses, topography. Lymphatic vessels and nodes of the head and neck. Outflow of lymph from the organs of the head and neck.		neck region).		
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	REPORT ON THE TOPIC: "ORGANS AND VESSELS OF THE HEAD AND NECK".	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. Topography, structure of the aortic arch and its branches. 2. Topography, structure of the external carotid artery and its branches. 3. Topography, structure of the internal carotid artery and its branches. 4. Topography, structure of the subclavian artery and its branches. 5. Topography, structure of the veins of the head and neck and their tributaries. 6. Blood supply to the organs of the head and neck. 7. Arterial and venous anastomoses of the head and neck. 8. Functions and principles of the structure of the digestive system. 9. The main stages of development of the digestive system 10. Departments of the digestive tract. 11. The structure of the walls of the oral cavity. 12. The structure and function of the salivary glands. 13. Structure and function of the language. 14. Structure and function of the dental apparatus. 15. Types of physiological and pathological bites. 16. The topography of the pharynx, its structure and functions. 17. Components of the Waldeyer-Pirogov lymphoepithelial ring. 18. The structure of the external nose and its cartilages. 19. The structure of the nasal cavity (nasal concha, nasal passages). 20. Messages of the nasal cavity and paranasal shells. 21. The structure of the laryngeal cavity. 22. Paired and unpaired cartilages of the larynx. 23. Connection of laryngeal cartilage and ligamentous apparatus. 24. Classification of laryngeal muscles.	1. To name in Latin and show the elements on a wet preparation: * Topography, structure of the aortic arch and its branches. * Topography, structure of the external carotid artery and its branches. * Topography, structure of the internal carotid artery and its branches. * Topography, structure of the subclavian artery and its branches. * Topography, structure of the veins of the head and neck and their tributaries. 2. Name and show the walls of the oral cavity on the sagittal cut of the head and skull. 3. Show all the formations of the oral cavity on the sagittal cut of the head. 4. Find the openings of the excretory ducts of large salivary glands. 5. By characteristic features, determine the types of teeth and their belonging to the right or left half of the alveolar arch. 6. Name and show the pharyngeal sections on a wet preparation, list the walls of each department and the structural formations on them (tonsils, tube roller) 7. Indicate and show the ways of communication of the pharynx with other cavities (the cavity of the nose, middle ear, mouth, esophagus, larynx). 8. Name the layers of the pharyngeal wall, explain the features of the mucous membrane of its various departments. 9. Name and prepare the pharyngeal muscles. 10. Show the nasal cavity and its formation on the sagittal cut of the head. 11. Show the laryngeal cavity on the sagittal cut of the head and name its departments. 12. Correctly position the laryngeal cartilages relative to each other.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

						13. Show the joints and ligaments of the larynx. 14. Show the muscles that expand the glottis. 15. Show the muscles that constrict the glottis. 16. Show the muscles straining the vocal cord.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Nerves of the head and neck. Features of the anatomy of the O, I and II pairs of cranial nerves. III, IV, VI pairs of cranial nerves. V pair. Kernels, roots, node. I branch of the trigeminal nerve. The area of innervation, branches, functions. The ciliary node. Its topography, roots.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. - name of 0, I, II, III, IV, V, VI pairs of cranial nerves (Latin and Russian transcription); 2. - name, characteristics, location in the trunk of nuclei III, IV and VI pairs of cranial nerves; 3. - the place of exit of the III, IV and VI pairs of cranial nerves from the cranial cavity; 4. - name, location and characteristics of the trigeminal nerve nuclei; 5. - location of the roots of the trigeminal nerve on the base of the skull; 6. - the place of exit from the skull and the area of innervation of the I branch; 7. - auxiliary eye apparatus. Classification, structure and function of the muscles of the eyeball.	1. - name and show the muscles of the eyeball (straight and oblique) and the muscle that raises the upper eyelid; 2. - name and show nerves III, IV, VI, I, II, V. 3. - show the upper and lower branches of the III nerve on the basis of the brain, in the cavity of the skull and eye socket.; 4. - name and show in the eye socket and on the basis of the brain the trunk of the optic brain, the optic nerve trunk, the intersection, the visual tracts, the lateral cranial bodies and the upper two-lobe, the spur furrow of the occipital lobe of the brain; 5. - name and show in the cranial cavity and on the basis of the brain the departments of the olfactory analyzer - olfactory bulbs on the latticed bone, olfactory tracts, olfactory triangles and its bundles, hook, arched gyrus; 6. - show on the preparation the exit point of the I branch (ocular nerve) of the trigeminal nerve	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Maxillary nerve. Branches, topography, area of innervation, upper dental plexus. The pterygoid node. Its topography, roots. The mandibular nerve. Composition. The area of innervation. The lower dental plexus. Autonomous nodes: auricular, submandibular, sublingual. Roots, topography, connections with branches of the trigeminal nerve and other cranial nerves.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. - name of 5 pairs of cranial nerves and its branches 2. - name, location and characteristics of the trigeminal nerve nuclei 3. - location of the roots of the trigeminal nerve at the base of the brain 4. - the location on the base of the skull of the semilunar ganglion of the trigeminal nerve - the Gasser node (pressure at the top of the pyramid of the temporal bone in the splitting of the dura mater of the brain) 5. - the place of exit from the skull and the area of innervation of the branches of 5 pairs of cranial nerves: a) the area and boundaries of the skin innervation b) the innervation of the masticatory muscles 6. the location of the autonomic ganglia along the branches of the trigeminal nerve	1. - show on the drug the exit point of the trigeminal nerve on the basis of the brain 2. - show the semilunar ganglion on the base of the skull 3. - show and name each branch coming out of the ganglion 4. - show and name the exit point of the 1st, 2nd and 3rd branches of the trigeminal nerve (holes); upper orbital fissure, round and oval holes, pterygoid fossa and the outer surface of the skull 5. - show on the drug the course and innervation zones of the 2nd and 3rd branches of the trigeminal nerve; 6. - show the lingual nerve and the drum string on the preparation. Determine the innervation zone	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Facial nerve. Its nuclei, roots, branches, the area of innervation. The lingopharyngeal nerve. Cores, branches. Vagus nerve. Its nuclei, topography, branches	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological	1) The exit of the facial (VII) nerve at the base of the brain and from the cranial cavity. 2) The topography of the nuclei and the course of the facial (VII) nerve. 3) Branches of the facial (VII) nerve and the area of innervation. 4) Topography of the course of the vestibular-cochlear (VIII) nerve. Location at the base of the	1) Name in Latin and show on the native preparation the output of the facial, vestibular-cochlear, lingopharyngeal, accessory and sublingual nerves at the base of the brain and from the cranial cavity. 2) Name in Latin and show on the native preparation the course of the facial nerve, its branches. 3) Name in Latin and show on the native preparation the course of the vestibular-cochlear nerve of the nerve, its branches.	- medical and anatomical terminological apparatus; - simple medical tools –

			of the intracranial and cervical divisions, areas of innervation. VIII, XI, XII pairs of cranial nerves. Nuclei, branches, innervation area.	states and pathological processes of the human body	brain. 5) Parts and nuclei of the vestibular cochlear (VIII) nerve. 6) Exit of the lingopharyngeal (IX) nerve at the base of the brain and from the cranial cavity. 7) The topography of the nuclei and the course of the lingopharyngeal (IX) nerve. 8) Branches of the lingopharyngeal (IX) nerve and the area of innervation. 9) Exit of the accessory (XI) nerve at the base of the brain and from the cranial cavity. 10) The topography of the nuclei and the course of the accessory (XI) nerve. 11) Branches of the accessory (XI) nerve and the area of innervation. 12) Exit of the sublingual (XII) nerve at the base of the brain and from the cranial cavity. 13) The topography of the nuclei and the course of the sublingual (XII) nerve. 14) Branches of the sublingual (XII) nerve and the area of innervation.	4) To name in Latin and show on the native preparation the course of the pharyngeal nerve, its branches. 5) Name in Latin and show on the native preparation the course of the accessory nerve, its branches. 6) Name in Latin and show on the native preparation the course of the sublingual nerve, its branches. 7) Show on the brain stem preparation the localization of cranial nerve nuclei (VII, VIII, IX, XI and XII cranial nerves) plexuses;	scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	The cervical plexus. Its formation, topography, branches, area of innervation. Cranial division of the parasympathetic nervous system. The cervical section of the sympathetic trunk. Innervation of the walls of the oral cavity. Innervation of salivary glands, teeth and tongue.	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1) Determination of the spinal nerve. 2) The principle of formation of the spinal nerve, its general characteristics. 3) Characteristics of the posterior branches of the spinal nerves 4) Characteristics of the anterior branches of the spinal nerves. 5) Formation and topography of the cervical plexus. 6) Classification of the branches of the cervical plexus by the nature of innervation. 7) Diaphragmatic nerve, stroke topography, branches, innervation area 8) Topographic and anatomical relationships of the course of blood vessels and branches of the cervical plexus.	1) Name and show the skin branches of the cervical plexus on the corpse. 2) Name and show the muscular branches of the cervical plexus on the corpse. 3) Name and show the "neck loop" on the corpse. Explain the mechanism of formation of the area of innervation. 4) Name and show on the corpse and trace the course of the diaphragmatic nerve. 5) Explain the significance of gray connective branches for muscle function.	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Elements of the topographic anatomy of the head and neck. Topography of vessels and nerves of the head and neck. Areas, triangles. Topography and contents of the openings of the base of the skull, the	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of	1) total number of skull bones; 2) paired and unpaired skull bones; 3) sections of the skull; 4) the bones that form the cerebral and facial parts of the skull; 5) the boundary between the cerebral and facial parts of the skull; 6) the inner and outer base of the skull and their messages; 7) layered topography of the neurovascular formations of the head area; 8) anatomical methods of head area research; 9) neck borders;	1. to name and show the bones of the cerebral part of the skull and their structure; 2. name and show the bones forming the facial part of the skull and their structure; 3. show and name anatomical formations of the inner and outer base of the skull; 4. show the fontanelles of the skull of a newborn and name them; 5. show the name on the preparation (sagittal and horizontal cuts) of the skull 6. show the name on the preparation (sagittal and horizontal cuts of the head) the organs of the head and neurovascular formations;	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

			suspensory, pterygoid and temporal pits, nasal cavity, eye socket, oral cavity. Cellular spaces of the head and neck, their messages.	the human body	10) superficial, medium and deep neck muscles (their origin, attachments and functions); 11) muscles that are located above the hyoid bone; 12) muscles that are located below the hyoid bone; 13) neck spaces: interglacial and preglacial; 14) neck fascia; 15) neck topography: areas and triangles; 16) anatomical methods of examination of the neck area.	7. layered topography. 8. show and name triangles and neck areas on a wet preparation (corpse); 9. show and name the neck muscles on a wet preparation (corpse); 10. name and show areas, triangles, neck muscles and neck borders on the dummy; 11. name and show the fascia of the neck.	
	GPC-9 (General professional competences)	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	REPORT ON THE TOPIC: "NERVES OF THE HEAD AND NECK. ELEMENTS OF TOPOGRAPHIC ANATOMY OF THE HEAD AND NECK".	Achievement Indicator-1 GPC-9 Determines the morphofunctional, physiological states and pathological processes of the human body	1. name of 0, I, II, III, IV, V, VI pairs of cranial nerves (Latin and Russian transcription); 2. name, characteristics, location in the trunk of nuclei III, IV and VI pairs of cranial nerves; 3. the place of exit of the III, IV and VI pairs of cranial nerves from the cranial cavity; 4. name, location and characteristics of the trigeminal nerve nuclei; 5. name, location and characteristics of the trigeminal nerve nuclei 6. the place of exit from the skull and the area of innervation of the branches of 5 pairs of cranial nerves: a) the area and boundaries of the skin innervation b) the innervation of the masticatory muscles 7. the location of the autonomic ganglia along the branches of the trigeminal nerve 8. Exit of the facial (VII) nerve at the base of the brain and from the cranial cavity. 9. Topography of the nuclei and the course of the facial (VII) nerve. 10. Branches of the facial (VII) nerve and the area of innervation. 11. Topography of the course of the vestibular-cochlear (VIII) nerve. Location at the base of the brain. 12. Parts and nuclei of the vestibular cochlear (VIII) nerve. 13. Exit of the lingopharyngeal (IX) nerve at the base of the brain and from the cranial cavity. 14. Topography of the nuclei and the course of the lingopharyngeal (IX) nerve. 15. Branches of the lingopharyngeal (IX) nerve and the area of innervation. 16. Exit of the accessory (XI) nerve at the base of the brain and from the cranial cavity. 17. Topography of the nuclei and the course of the accessory (XI) nerve. 18. Branches of the accessory (XI) nerve and the area of innervation. 19. Exit of the sublingual (XII) nerve at the base of the brain and from the cranial cavity. 20. Topography of the nuclei and course of the sublingual (XII) nerve. 21. Branches of the sublingual (XII) nerve and the area of innervation. 22. The principle of formation of the spinal nerve, its	1. name and show the muscles of the eyeball (straight and oblique) and the muscle that raises the upper eyelid; 2. name and show nerves III, IV, VI, I, II, V on the basis of the brain, in the cranial cavity and eye socket. 3. show the upper and lower branches of the III nerve; 4. name and show in the eye socket and on the basis of the brain the trunk of the optic brain, the optic nerve trunk, the intersection, the visual tracts, the lateral cranial bodies and the upper two-lobe, the spur furrow of the occipital lobe of the brain; 5. name and show in the cranial cavity and on the basis of the brain the departments of the olfactory analyzer - olfactory bulbs on the latticed bone, olfactory tracts, olfactory triangles and its bundles, hook, arched gyrus; 6. show on the drug the exit point of the trigeminal nerve at the base of the brain 7. show the semilunar ganglion on the base of the skull 8. show and name each branch coming out of the ganglion 9. show and name the exit point of the branches of the trigeminal nerve (holes). 10. show the lingual nerve and the drum string on the preparation. Determine the innervation zone. 11. Name in Latin and show on the native preparation the output of the facial, vestibular-cochlear, lingual-pharyngeal, accessory and sublingual nerves at the base of the brain and from the cranial cavity. 12. Name in Latin and show on the native preparation the course of the facial nerve, its branches. 13. To name in Latin and show on the native preparation the course of the vestibular-cochlear nerve, its branches. 14. To name in Latin and show on the native preparation the course of the pharyngeal nerve, its branches. 15. To name in Latin and show on the native preparation the course of the accessory nerve, its branches. 16. To name in Latin and show on the native preparation the course of the sublingual nerve, its branches. 17. Show the localization of cranial nerve nuclei (VII, VIII, IX, XI and XII cranial nerves) on the brain stem preparation; 18. Name and show the skin branches of the cervical plexus on the corpse. 19. Name and show the muscular branches of the cervical plexus on the corpse. 20. Name and show the "neck loop" on the corpse. Explain the mechanism of formation and the area of innervation. 21. Name and show on the corpse and trace the course of	- medical and anatomical terminological apparatus; - simple medical tools – scalpel and tweezers.

					general characteristics. 23. Characteristics of the posterior branches of the spinal nerves 24. Characteristics of the anterior branches of the spinal nerves. 25. Formation and topography of the cervical plexus. 26. Classification of branches of the cervical plexus by the nature of innervation. 27. Diaphragmatic nerve, stroke topography, branches, innervation area 28. Topographic and anatomical relationships of the course of blood vessels and branches of the cervical plexus. 29. layered topography of neurovascular formations of the head area; 30. anatomical methods of head area research; 31. neck spaces: interglacial and preglacial; 32. neck fascia; 33. neck topography: areas and triangles;	the diaphragmatic nerve. 22. Explain the significance of gray connective branches for muscle function. 23. - to name and show the bones of the cerebral part of the skull and their structure; 24. - to name and show the bones forming the facial part of the skull and their structure; 25. - show and name anatomical formations of the inner and outer base of the skull; 26. - show the name on the preparation (sagittal and horizontal cuts) of the skull, head organs and neurovascular formations;	

1. The place of discipline in the structure of the educational program

The discipline **"Human Anatomy - Anatomy of the Head and Neck"** refers to the mandatory part of Block 1 of the Federal State Educational Standard of Higher Education in the specialty **31.05.03 DENTISTRY.**

2. Scope of discipline

№ №	Kind of work		Total credits	Total hours	Semesters		
					№ 1	№2	№ 3
					hours	hours	hours
1	*2*		*3*	*4*	*5*	*6*	*7*
1	**Contact hours of students working with the teacher (total), including:**		-	**188**	**60**	**80**	**48**
2	Lectures (L)		-	46	12	20	14
3	Practical training (PT)		-	142	48	60	34
4	Seminars (C)		-	-	-	-	-
5	Laboratory work (LR)		-	-	-	-	-
6	**Self-study student (IWS)**		**-**	**172**	**120**	**28**	**24**
7	**Intermediate type certification**	Offset (Z)	-	-	-	-	
		Exam (E)	1	**36**	-	-	36
8	**IN TOTAL: General labor intensity**	Hours	-	**396**	**180**	**108**	**108**
		Credit unit	**11**	-	**5**	**3**	**3**

5. The content of the discipline

№№	Semester number	Name of the section of the discipline (module)	Types of educational activities, including independent work of students (in hours)					Forms of monitoring progress
			L	**LR**	**PT**	**IWS**	TOTAL	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1	1	Introduction	-	-	-	2	2	• Oral questioning on theoretical topics and on native anatomical preparations. • Oral asking for knowledge of anatomical preparations. • Test control. • Checklists. • Situational tasks.
2	1	Musculoskeletal system	4	-	16	32	52	
3	1	Central nervous system	4	-	16	32	52	
4	1	Estesiology	2	-	4	10	16	
5	1	Organs of the immune system. Endocrine glands.	2	-	4	14	20	
6	2	Splanchnology	10	-	21	18	49	• Oral questioning on theoretical topics and on native anatomical preparations. • Oral asking for knowledge of anatomical preparations. • Test control. • Checklists. • Situational tasks.
7	2	Angiology: heart, arteries, veins, lymphatic vessels	4	-	24	18	46	
8	2	Neurology. Peripheral nervous system	6	-	23	18	47	
9	3	Anatomy of the skull	2	-	6	3	11	• Oral questioning on theoretical topics and on native anatomical preparations. • Oral asking for knowledge of anatomical preparations. • Test control. • Checklists. • Situational tasks.
10	3	Muscles of the head and neck	2	-	4	3	9	
11	3	Oral and pharyngeal cavity	2	-	4	3	9	
12	3	Teeth	-	-	4	5	9	
13	3	Vessels of the head and neck	4	-	4	5	13	
14	3	Nerves of the head and neck	4	-	8	5	17	

15	3	Topographic anatomy of the head and neck	-	-	4	4	8	
		IN TOTAL:	**46**	**0**	**142**	**172**	**360**	
		EXAM:	**-**	**-**	**-**	**-**	**36**	
		IN TOTAL:					**396**	

6. The list of teaching and methodological support for independent work of students in the discipline

№	Semester number	The name of the educational and methodical recommendations
1.	1	COLLECTION OF METHODOLOGICAL AIDS FOR THE DISCIPLINE "HUMAN ANATOMY - ANATOMY OF THE HEAD AND NECK" for practical exercises and for extracurricular independent work for 1st year students of the Faculty of Dentistry in the 1st semester. Author: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
2.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Osteology. Body bones. The principle of segmentation of the structure of the axial skeleton. Vertebral column. Features of the structure of the vertebrae of various departments: cervical, thoracic, lumbar. The sacrum and coccyx. Age, sex, individual features of the structure of the vertebrae. Ribs, their structure. Rib classification. Form of variability of the ribs and sternum. Anomalies of their development. Age, gender, individual structural features. X-ray anatomy of the bones of the body. Anatomical terminology. Axes and planes.» Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
3.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Osteology. Limb bones. Bones of the girdle of the upper limbs: clavicle, scapula. Skeleton of free upper limbs: humerus, forearm bones, hands. Osteology. Limb bones. Bones of the girdle of the lower extremities: pelvic bone. Skeleton of free lower extremities: femur, lower leg bones, feet. X-ray anatomy of the bones of the limbs». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
4.	1	Methodological guide for practical exercises and extracurricular independent work on the topic: «Skull bones (general data). Cerebral and facial parts of the skull (general data). The bones of their constituents (names, parts, location). Skull as a whole. Roof, base of the skull, their formation. Eye socket, nasal cavity (name, parts, location). Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
5.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Arthrology. Connecting the bones of the body. Development of connections, classification. The structure of the joints, classification, movements in the joints. Connection of the bones of the skull (general characteristics). Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
6.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Arthrology. Connection of the bones of the upper and lower extremities. Connections of the bones of the upper limb - belt, shoulder, forearm, hand. Connections of the bones of the lower limb - pelvis, thigh, lower leg, foot. X-ray anatomy of the joints. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
7.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Miology. Muscles and fasciae of the body. Muscle development. Muscle as an organ. Muscles and fascia of the chest, diaphragm. Muscles and fascia of the abdomen, inguinal canal, white line, umbilical ring. Muscles and fasciae of the back. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
8.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «Miology. Muscles and fascia of the head and neck: general data (know muscle groups, names, navigate in location). Muscles of the upper limb: belt, shoulder, forearm, hand. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
9.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «The muscles of the lower limb. Muscles of the pelvic girdle. Muscles of the thigh. Leg muscles. Muscles of the foot. Fascia and tendon sheaths of the lower limb. Elements of topographic anatomy of the lower limb. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
10.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «CNS. General data on the structure of the central nervous system. External and internal structure of the spinal cord. gray and white matter. Topography of conducting ways. The membranes of the spinal cord. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
11.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «CNS. Overview of the brain. The brain stem. Medulla. Hind brain. IV ventricle. Rhomboid fossa. CNS. Midbrain and diencephalon. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
12.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «CNS. Terminal brain. Olfactory brain. Cloak. Localization of functions in the cerebral cortex, lateral ventricles. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
13.	1	Methodological guide for practical classes and extracurricular independent work on the topic: «CNS. Ascending and descending tracts of the spinal cord and brain. Sheaths of the brain. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
14.	1	A methodological guide for a practical lesson and extracurricular independent work on the topic: "Sense organs. Eye. Development. Structure. Auxiliary apparatus. The conductive path of the visual analyzer. Ear. Development, building. Auditory and statokinetic analyzers. Leather. Organs of smell and taste. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
15.	1	Methodical manual for practical classes and extracurricular independent work on the topic: «Glands of internal secretion. Development, topography, structure. Features of blood supply and innervation. Immune formations: structure, location, functions. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
16.	2	COLLECTION OF METHODOLOGICAL AIDS FOR THE DISCIPLINE "HUMAN ANATOMY - ANATOMY OF THE HEAD AND NECK" for practical exercises and for extracurricular independent work for 1st year students of the Faculty of Dentistry in the 2nd semester. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
17.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the oral cavity, teeth, tongue and salivary glands, soft palate. Anatomy and topography of the pharynx, esophagus. The course of the food

		bolus. X-ray Anatomy". Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
18.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the stomach and intestines. Anatomy and topography of the rectum. X-ray Anatomy". Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
19.	2	Methodical manual for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the liver, pancreas, peritoneum, gallbladder.» Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
20.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the nasal cavity and larynx. Anatomy and topography of the trachea, bronchi and lungs. The course of the air jet. Anatomical and physiological dead spaces. Anatomy and topography of the pleura and mediastinal organs. X-ray anatomy". Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
21.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the kidneys, ureters, bladder and urethra. The course of urine. X-ray anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
22.	2	Methodical manual for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the male genital organs. Meaning and practical skills. The membranes of the testis and scrotum. The course of the seed. Male crotch. Anatomy and topography of female genital organs. Women's crotch. X-ray anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
23.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the heart. Chambers of the heart, the structure of the wall of the heart. Circles of blood circulation. Blood supply of the heart: arteries and veins of the heart. conduction system of the heart. Pericardium». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
24.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the orta and its parts. Branches of the aortic arch. Common carotid artery. Anatomy and topography of the external carotid artery and its branches. Anatomy and topography of the internal carotid artery and its branches. Anatomy and topography of the subclavian artery and its branches. Blood supply to the brain x-ray – anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
25.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the thoracic and abdominal parts of the aorta and their branches. Anatomy and topography of the common, external and internal iliac arteries and their branches. Meaning and practical skills. X-ray anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
26.	2	Methodical manual for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the artery of the free upper limb (axillary, brachial arteries, arteries of the forearm and hand). Arteries of the free lower limb (femur, lower leg and foot). Meaning and practical skills. X-ray anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
27.	2	A methodological guide for a practical lesson and extracurricular independent work on the topic: «Venas of the head and neck. Superior vena cava. Veins of the thoracic, abdominal and pelvic cavities (unpaired, semi-unpaired, inferior vena cava, portal veins). Anatomy and topography of cava-caval and porto-caval anastomoses. Fetal circulation. Anatomy of the veins of the upper and lower extremities. Meaning and practical skills. X-ray – anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
28.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the organs of the lymphatic system. Meaning and practical skills. X-ray Anatomy». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
29.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the immune system. Meaning and practical skills». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
30.	2	Methodical manual for practical classes and extracurricular independent work on the topic: «Endocrine glands». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
31.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «General anatomy and topography of the spinal nerves. Anatomy and topography of the cervical plexus. Topography of the course of vessels and nerves». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
32.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Anatomy and topography of the brachial plexus (short and long branches). Topography of the course of vessels and nerves». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
33.	2	Guidelines for extracurricular independent work on the topic: «Anatomy and topography of the brachial plexus. Nerves of the axilla, shoulder, forearm and hand. Overview of the innervation of the skin and muscles of the upper limb». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
34.	2	Methodological guide for practical classes and extracurricular independent work on the topic: «Intercostal nerves. Anatomy and topography of the lumbar plexus. Anatomy and topography of the sacral plexus. Anatomy and topography of the genital and coccygeal plexuses. Topography of the course of vessels and nerves». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
35.	2	Methodical manual for practical training and extracurricular independent work on the topic: «The autonomic (autonomous) nervous system. Vegetative innervation of organs». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
36.	2	A methodological guide for a practical lesson and extracurricular independent work on the topic: "Anatomy and topography of the vagus (X) nerve and its branches» Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
37.	3	COLLECTION OF METHODOLOGICAL MANUALS FOR THE DISCIPLINE "HUMAN ANATOMY - ANATOMY OF THE HEAD AND NECK" for practical exercises and for extracurricular independent work for students of the 2nd year of the Faculty of Dentistry in the 3rd semester Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
38.	3	Methodological guide for practical classes and extracurricular independent work on the topic: «Development of the skull. Bones of the brain skull. Bones of the facial skull». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
39.	3	Methodological guide for practical exercises and extracurricular independent work on the topic: «The skull as a whole. Joints of the bones of the skull». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023

40.	3	Methodological guide for practical training and extracurricular independent work on the topic: «Head muscles. Fascia of the head. Cellular spaces». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
41.	3	Methodological guide for practical training and extracurricular independent work on the topic: «Neck muscles. Fascia of the neck. Cellular spaces». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
42.	3	A methodological guide for a practical lesson and extracurricular independent work on the topic: «Mouth, mouth development. Oral organs. Pharynx. Teeth. Their structure. dental formulas. Signs of teeth». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
43.	3	A methodological guide for a practical lesson and extracurricular independent work on the topic: «Incisors, fangs. Large and small molars. Baby teeth. Timing of teeth replacement. dental segments. Articulation, occlusion, bites. The dental system as a whole. X-ray anatomy of teeth». Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
44.	3	Methodological guide for practical classes and extracurricular independent work on the topic: Vessels of the head and neck. Common carotid artery. External carotid artery. Internal carotid artery. Their topography, parts, branches, areas of blood supply. Subclavian artery. Topography, branches, area of blood supply. Extrasystemic and intrasystemic anastomoses of the arteries of the head and neck. X-ray anatomy of the arteries of the head. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
45.	3	A methodological guide for a practical lesson and extracurricular independent work on the topic: "Venas and venous formations of the cerebral part of the head. Sinuses of the dura mater. Diploic and emissary veins. Veins of the cranial vault, eye sockets. Their tributaries, anastomoses, topography. Deep and superficial veins of the face and neck. Mandibular vein, facial vein. Pterygoid venous plexus. Topography, tributaries, anastomoses. Superficial veins of the neck - external and anterior jugular. Internal jugular and subclavian veins. Inflows, anastomoses, topography. Lymphatic vessels and nodes of the head and neck. Lymph outflow from the organs of the head and neck. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
46.	3	Methodological guide for practical classes and extracurricular independent work on the topic: "Nerves of the head and neck. Features of the anatomy of 0, I and II pairs of cranial nerves. III, IV, VI pairs of cranial nerves. V pair. Kernels, roots, knot. I branch of the trigeminal nerve. Area of innervation, branches, functions. Eyelash node. Its topography, roots". Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
47.	3	Methodological guide for practical classes and extracurricular independent work on the topic: Maxillary nerve. Branches, topography, region of innervation, superior dental plexus. Pterygopalatine node. Its topography, roots. Mandibular nerve. Composition. area of innervation. Lower dental plexus. Autonomous nodes: ear, submandibular, sublingual. Roots, topography, connections with branches of the trigeminal nerve and other cranial nerves. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
48.	3	Methodological guide for practical classes and extracurricular independent work on the topic: "Facial nerve. Its nuclei, roots, branches, area of innervation. Glossopharyngeal nerve. Kernels, branches. Nervus vagus. Its nuclei, topography, branches of the intracranial and cervical regions, areas of innervation. VIII, XI, XII pairs of cranial nerves. Nuclei, branches, region of innervation. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
49.	3	A methodological guide for a practical lesson and extracurricular independent work on the topic: "Cervical plexus. Its formation, topography, branches, area of innervation. Cranial division of the parasympathetic nervous system. Cervical region of the sympathetic trunk. Innervation of the walls of the oral cavity. Innervation of the salivary glands, teeth and tongue. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
50.	3	Methodological guide for practical classes and extracurricular independent work on the topic: "Elements of topographic anatomy of the head and neck. Topography of vessels and nerves of the head and neck. Areas, triangles. Topography and contents of the openings of the skull base, infratemporal, pterygopalatine and temporal fossae, nasal cavity, orbit, oral cavity. Cellular spaces of the head and neck, their communications. Authors: head. Department, Associate Professor Totoeva O.N. / Vladikavkaz, 2023
51.	1-3	Anatomical terminology - a glossary from A to Z (Totoeva O.N., Tuaeva Z.S.)

7. Assessment tools for the intermediate certification of students in the discipline

№/п	The list of competencies	Semester number	Indicator(s) of assessment	Evaluation Criterion (s)	Grading scale	Name of assessment methods
1	**2**	**3**	**4**	**5**	**6**	**7**
1	GPC-9 (General professional competences)	**1, 2, 3**	See standard for assessing the quality of education, approved. by order of the Federal State Budgetary Educational Institution Of Higher Education NOSMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 / o	See standard for assessing the quality of education, approved. by order of the Federal State Budgetary Educational Institution Of Higher Education NOSMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 / o	See standard for assessing the quality of education, approved. by order of the Federal State Budgetary Educational Institution Of Higher Education NOSMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 / o	Examination tickets for the exam; Bank of test tasks with the algorithm for the formation of options; Examination tickets for practical skills

8. The list of basic and additional textbooks necessary to study the discipline

Main literature:

№	Title Author(s)	Year	Place of publication	No. of copies	
				in the library	at the department
1	*2*	*3*	*4*	*7*	*8*
1.	Textbook of human anatomy : For medical students. In 2 volumes-	Sapin M. R., Kolesnikov L. L., Nikitjuk D. B.	M. : New Wave Publishing Agency, 2015	Vol.1 -35 Vol.2 - 35	
2.	Textbook of human anatomy: For medical students. In 2	Sapin M. R., Kolesnikov L. L.,	M. : New Wave Publishing Agency, 2015	Vol.1 -40 Vol.2 - 40	

	volumes-	Nikitjuk D. B.			
3.	Атлас анатомии человека в 4 т.	Синельников Р. Д. Синельников Я. Р., Синельников А. Я.	М. : Новая волна : Издатель Умеренков, 2007- 2017	Т. 1-25 Т. 2-19 Т. 3-17 Т. 4- 15	1

Additional literature

№	Title Author(s)	Year	Place of publication	No. of copies	
				in the library	at the department
1	*2*	*3*	*4*	*7*	*8*
1.	Атлас анатомии человека: учеб. пособие	Неттер Ф.	М.: ГЭОТАР- Медиа, 2003, 2007, 2015	22	1
2.	Human developmental anatomy	Kurt E. Johnson.	Baltimore: Williams & Wilkins, 1991	1	
3.	Clinically oriented anatomy	Moore K.	Baltimore : Williams & Wilkins, 1992	1	

9. The list of resources of information and telecommunication network "Internet", necessary for mastering the discipline

Reference materials, electronic libraries and magazines:

- wikipedia.org
- http: // anatomiya-atlas .ru /
- http: // www .anatomcom.ru /
- http://www.mednik.com.ua
- ELS "Student Consultant" www.studmedlib.ru
- EBS "BookUP" books-up.ru
- Electronic information and educational system "Human Anatomy. Anatomy of Moscow State City University of Medicine and Dentistry".
- www.anatomia.ru
- MedExplorer, MedHunt, PubMed.
- http://elibrary.ru

Russian scientific journals on human anatomy:

- **MORPHOLOGY (ARCHIVE OF ANATOMY, HISTOLOGY AND EMBRYOLOGY)**
- **MORPHOLOGICAL STATEMENTS**
- **CLINICAL AND EXPERIMENTAL MORPHOLOGY**
- **JOURNAL OF ANATOMY AND HISTOPATOLOGY**

10. Guidelines for students on the development of discipline

Training consists of contact work of students with teacher (188 hours), including a lecture course and practical classes, and independent work (172 hours). The main study time is allocated for practical work. During practical classes, students study anatomical macropreparations, locate individual organs in the human body and in themselves, master the preparation and prepare anatomical preparations of individual organs and areas of the human body. Dissection implements one of the competencies - the ability and willingness to use anatomical medical tools and teaches future doctors to independent thinking, which is necessary for an individual approach to a sick person in the clinic.

During classes, students acquire the following practical skills: using basic anatomical tools, dissecting joints, muscles, vessels, nerves, establishing skin innervation zones of peripheral nerves, determining basic anthropometric points and lines to determine the constitutional features of the body structure, draw lines on the skin surface to determine contours internal organs. They master the palpation of the main bone formations, superficial arteries, the main groups of lymph nodes.

Methods used in the study of human anatomy: the use of natural embalmed preparations (individual organs and parts of the body) in the educational process; preparation as a classic method of studying anatomy; vascular injections with embalming solutions, colored solidifying masses; work with enlightened and corrosive preparations; study of X-rays of bones, joints and some other organs; the use of macro-microscopic pictures of various organs of the human body, making cuts (according to NI Pirogov) in different planes, macro-microscopy.

During classes, students' knowledge is verified by the method of testing, frontal and individual interviews on native anatomical preparations. Upon completion of the study of each section of the anatomy of the final lesson. The following methods are used on a living person: anthropometry, fluoroscopy and radiography, tomography.

For a successful and fruitful learning and mastering by students of the program on human anatomy, preference is given to individual student work.

Teaching human anatomy involves close integration with other departments throughout the entire period of study: biology and histology, cytology, embryology.

Materials from biology help to understand the biological nature of man in a series of vertebrates, structural, age and sex characteristics of the human body. In agreement with the Department of Biology, the Department of Human Anatomy is a brief comparison of a person in a comparatively anatomical plan with the development of vertebrate animals.

In the process of teaching human anatomy, first of all, a systematic approach is used (students study the human body using systems), topographic-anatomical principles (studying the position and relationship of organs and tissues with each other, with parts of the skeleton and the walls of the cavities).

During the 1st and 2nd semesters, students study human anatomy, and during the 3rd semester - the anatomy of the head and neck. A detailed study of the anatomical formations of the head and neck, their blood supply and innervation, the ways of lymph outflow is necessary for a dentist.

Work with educational literature is considered as a type of educational work on the discipline and is performed within the hours of independent work of students assigned to study it. Various types of educational work, including independent work of a student, contribute to mastering the culture of thinking, the ability to formulate its results logically and correctly in written and oral speech; willingness to form a systematic approach to the analysis of medical information, the perception of innovation; form the ability and willingness to self-improvement, self-realization, personal and objective reflection.

Each student is provided with access to library funds of the North Ossetian State Medical Academy and the Department of Human Anatomy.

For each section of the discipline developed guidelines for students and guidelines for teachers.

The department created the conditions for independent work of students, which is carried out in two forms - classroom and extracurricular.

Self-Work is carried out in several directions. The first direction is to work on complete, prepared cadavers and separate anatomical preparations. Students use compulsory and additional literature. The second direction is the independent production of preparations on the current topic with the active consultations of teachers. Special attention at the department is paid to the organization of independent extracurricular work of students. Every day after class every student can receive a thematic macro-preparation for study and, using the methodological instructions, prepare answers to the questions submitted for independent work. In the organization of extracurricular work, methodological developments are actively used for students in each section of anatomy.

Student work in a group creates a sense of collectivism and sociability. It is necessary to educate students, guided by the traditional principles of humanism and mercy, respectful and careful attitude to the object being studied - the organs of the human body, to the corpse; inculcate high moral standards of behavior in the sectional halls of a medical school.

Educational activity of students at the department is assessed in the framework of the implemented point-rating system for assessing their knowledge and skills. It is conducted in accordance with the provision on the point-rating system for evaluating the educational activities of students of the North Ossetian State Medical Academy. The final certification is carried out at the end of the 3 semester of studies and includes three stages: pre-examination testing, assessment of practical skills, interview. The exam in human anatomy is conducted in the scope of this program.

11. The list of information technologies used in the implementation of the educational process in the discipline

Microsoft Office
PowerPoint;
Acrobat Reader;
Internet Explorer

12. Description of the material and technical base necessary for the implementation of the educational process in the discipline

The provision of the educational process with specialized equipment (laboratory equipment, phantoms (with names), models (with names), etc.

HUMAN ANATOMY

№	Equipment Identification	Amount	Technical Condition
Special equipment			
1.	Microscope, pieces	1	Satisfied
2.	Negatoscope, pieces	3	Satisfied
3.	Other equipment (list)	-	-
Phantoms			
4.	Missing		
Native anatomical preparations			
5.	Neurovascular corpse	1	Satisfied
6.	Muscular corpse	1	Satisfied
7.	Sagittal head cuts	3	Satisfied
8.	Upper and lower limbs (muscles, nerves, blood vessels)	3	Satisfied
9.	Respiratory System Organs	8	Satisfied
10.	Organs of the digestive system	9	Satisfied

11.	Genitourinary system	15	Satisfied
12.	Brain and spinal cord	14	Satisfied
13.	Bone joints	20	Satisfied
14.	Bones of the body, head, limbs	57	Satisfied
Dummies			
15.	Head and neck	2	Satisfied
16.	Eyes	3	Satisfied
17.	Fetus	7	Satisfied
18.	Hip joint	1	Satisfied
19.	Hearing aid	1	Satisfied
20.	Liver	1	Satisfied
21.	Tables	600	Satisfied

Security of the educational process by technical means of training, computer equipment
HUMAN ANATOMY

№	Name of equipment	Quantity	Technical content
1	Computer (computer class)	5 (10)	Satisfied
2	Notebook	2	Satisfied
3	Projector	1	Satisfied
4	Scanner, Copier, Printer	2, 2	Satisfied
5	Television	-	-
6	Video camera	-	-
7	Camera	-	-
8	Overhead	1	Satisfied
9	Interactive anatomical table Anatomage	1	Satisfied
10	Other technical training tools (list)	-	-

13. Conducting educational activities using e-learning and distance learning technologies In the context of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow full-time training, it is possible to study this discipline or part of it using e-learning and distance educational technologies. Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, monitoring progress, as well as intermediate certification of students, platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use in the academy, such as Moodle, Zoom, Webinar, etc., can be used. Lectures can be presented in the form of audio, video, "live lectures", etc. Conducting seminars and practical classes is possible on-line both in synchronous and asynchronous modes. Seminars can be held in the form of web conferences