

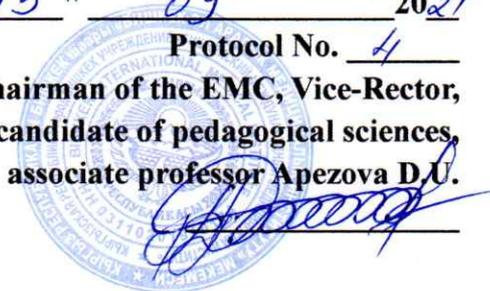


APPROVED  
EMD decision

"13" 09 2021

Protocol No. 4

Chairman of the EMC, Vice-Rector,  
candidate of pedagogical sciences,  
associate professor Apezova D.U.



## SYLLABUS by discipline

### B.3.1.2. NORMAL ANATOMY

For students of the educational program, of higher professional education in the specialty 560001 "General Medicine" (5-year education) in the specialty "Doctor"

Type of study work	Всего часов
Course	1,2
Semester	1,2
Number of weeks	13/13
Credits	12
<i>The total complexity of the discipline</i>	240/120
Classroom/practical studies (PS)	78/138
Student Independent Work (SIW)	138
Forms of control	
current control	Testing, oral questioning, written test
Frontier control	Testing
Midterm	Testing
Final control	exam
Semester rating by discipline:	Point-rating system

### Information about the teacher of the academic discipline

Full Name	Amanatov Bekjan Kubanbekovich
Post	Teacher
Academic degree	-
Academic title	-
Email address	bekjan.amanatov@mail.ru
Location of the department (address)	KR, Bishkek, st. Shabdan Baatyr 128, floor 2
Telephone	0558515xxx
Consultation hours	11.00-13.30

### Характеристика учебной дисциплины

*The purpose of studying* the discipline is to reveal the main methodological provisions of the academic discipline "Normal Anatomy".

Normal anatomy (B.3.1.2) - the content of the discipline is the basis for the development of general medical and clinical disciplines.

Anatomy is the foundation of medical education. Anatomy is one of the morphological disciplines. This is the science of the form, structure, origin and development of the human body, its systems and organs. Anatomy studies the structure of a person, taking into account biological patterns, age, gender and individual characteristics. The main methods of anatomy: observation, examination of the body, autopsy, study of a single organ or group of organs, their internal structure. Modern anatomy is functional, because it considers the structure of the human body in connection with its functions.

Anatomy is most directly related to all disciplines studied at the faculty, especially with clinical disciplines. The study of the discipline allows you to get closer to solving the problem aimed at a competent interpretation of the level of health, identifying and outlining the role of a mid-level medical worker in this process.

#### **Discipline Prerequisites:**

- Biology

#### **Postrequisites of the discipline:**

- Anatomy,
- Histology,
- Physiology,
- Pathological anatomy,
- Pathological physiology,
- Introduction to the clinic,
- Propaedeutics of internal diseases,
- Visual diagnostics,
- General surgery.

#### **Learning outcomes of the discipline according to the RO GPP**

The study of the discipline "Normal Anatomy" will contribute to the achievement of learning outcomes (LE) of the PLO:

**PO1:** describe and distinguish between the normal structure (morphology) and function (physiology) of the body as a whole, organs and systems, as well as pathological changes that are observed in various diseases and conditions.

Within the framework of this discipline, it is expected to achieve the following learning outcomes of the discipline, which are implemented as part of the achievement of competencies:

**PC-15** - able and ready to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological features, basic methods of clinical and laboratory examination and assessment of the functional state of the body of an adult and children, for the timely diagnosis of diseases and pathological processes;

#### **Content of the discipline**

<b>№.№</b>	<b>Name of topics</b>
1.	Introduction to human anatomy. Subject of anatomy (anatomy as a science) Methods of anatomical research
2.	General osteology. Bone as an organ. The structure and classification of bones
3.	Body skeleton. Vertebral column as a whole
4.	Rib cage. Sternum. Ribs.
5.	Skull skeleton. Cerebral and facial parts of the skull. Age features
6.	Brain skull: Frontal, parietal bones
7.	Brain skull: Temporal, occipital bones
8.	Brain skull: Sphenoid, ethmoid bones
9.	Facial skull: Upper jaw, lower jaw, hyoid bone
10.	Facial skull: Nasal, lacrimal, zygomatic, palatine bones. Coulter. Inferior turbinate
11.	Bones of the girdle of the upper limb. Collarbone. shoulder blade
12.	Bones of the free upper limb. Brachial bone
13.	Bones of the forearm. Ulna, radius

14.	The bones of the hand. Comma. Metacarpus. Finger bones
15.	Bones of the girdle of the lower limb. Iliac, ischium, pubic bones
16.	Bones of the free lower limb. Femur. Patella
17.	Leg bones. Tibia, fibula
18.	Foot bones. Tarsus. Metatarsus. Bones of the toes
19.	Общая артродология. Классификация соединений.
20.	The connection of the bones of the body: the connection between the vertebrae, ribs. Connection of the spinal column with the skull. Joints of the bones of the skull
21.	Joints of the bones of the girdle of the upper limb. Collarbone. shoulder blade
22.	Joints of the bones of the free upper limb. Shoulder joint. elbow joint
23.	Connections of the bones of the forearm to each other. The wrist joint. Joints of the bones of the hand
24.	Joints of the pelvic bones. hip joint
25.	Joints of the bones of the free lower limb. Knee-joint.
26.	Connections of the bones of the lower leg to each other. Ankle joint. Joints of the bones of the foot
27.	Control by osteosyndesmology.
28.	Myology is the science of muscles. Muscles and fasciae of the back. Superficial muscles of the back. Deep muscles of the back.
29.	Muscles and fascia of the chest. Abdominal muscles. Diaphragm
30.	Muscles and fasciae of the head. Chewing muscles
31.	Facial muscles
32.	Muscles and fascia of the neck. Surface and middle layers
33.	Deep neck muscles
34.	Muscles and fascia of the girdle and free upper limb. Shoulder muscles. Front and rear groups
35.	Muscles of the forearm. Front and back group.
36.	Muscles and fascia of the leg and foot
37.	Контроль по миологии.
38.	Respiratory system. nasal cavity. Paranasal sinuses Nasopharynx. Larynx. Trachea. Bronchi. Lungs. Pleura. Mediastinal organs.
39.	Digestive system. Oral cavity: Cheeks, palate, tongue, salivary glands, Pancreas. Gallbladder. Abdomen. Peritoneum.
40.	Urinary system. Kidneys. Ureters. Bladder. Urethra.
41.	Male reproductive organs: external and internal genitalia
42.	Female reproductive organs: external and internal genital organs
43.	Endocrine system. Endocrine glands. Thyroid. Parathyroid glands. Thymus. Pituitary. Pineal body. adrenal glands
44.	Cardiovascular system (CVS). Heart: the structure of the chambers of the heart and its valvular apparatus
45.	conduction system of the heart. Blood supply and innervation. Topography of the heart. Pericardium
46.	Arterial part of the CCC. Vessels of a large circle of blood circulation. Aorta. Branches of the aortic arch. External carotid artery: course, branches, areas of blood supply, topography
47.	Internal carotid artery: course, branches, areas of blood supply, topography. Subclavian artery: course, branches, areas of blood supply, topography
48.	Arteries of the upper limb. Axillary artery: branches, areas of blood supply, topography. Arteries of the shoulder, forearm, hand. Topography, course, branches, areas of blood supply. Main arterial anastomoses of the upper limb
49.	Branches of the thoracic aorta: course, areas of blood supply, topography. Branches of the abdominal parts of the aorta: course, areas of blood supply, topography. Major arterial anastomoses.
50.	Common iliac artery. Arteries of the lower extremity: thighs, legs, feet. Topography, course, branches, areas of blood supply. Major arterial anastomoses
51.	Venous part of the CCC. The system of the superior vena cava. Formation, main tributaries, anastomoses. Veins of the head and neck, upper limb.

52.	The system of the inferior vena cava. portal vein system. Formation, main tributaries. Veins of the pelvis, lower limb. Venous anastomoses.
53.	Private anatomy of the lymphatic system. Regional lymphatic vessels and nodes of body parts
54.	Central nervous system. Brain. hemispheres of the brain. The relief of the hemispheres: surfaces, lobes, furrows, convolutions. Olfactory brain. Base brain. Output from the brain 12 pairs of cranial nerves.
55.	Localization of functions in the cerebral cortex. The internal structure of the hemispheres. Lateral ventricles of the brain. Basal ganglia.
56.	Interbrain: thalamic region, hypothalamus. III ventricle. Midbrain Aqueduct of the midbrain. External and internal structure, functions.
57.	Hind brain: bridge, cerebellum. External and internal structure, functions. Oblong brain: external and internal structure, functions. IV ventricle. Rhomboid fossa. Isthmus of the rhomboid brain
58.	Spinal cord: external and internal structure, functions. spinal segments. Sheaths of the brain and spinal cord
59.	Conducting pathways of the nervous system: sensory (afferent) and motor (efferent)
60.	Peripheral nervous system. Cranial nerves: I, II, III, IV, VI, pairs. Nuclei, move, branches, topography, areas of innervation. Organs of vision, smell: structure, pathways
61.	Cranial nerves V, VII, IX, pairs. Nuclei, course, branches, topography, areas of innervation. Taste organ: structure, pathway
62.	VIII pair of cranial nerves: nuclei, course, branches, topography, areas of innervation
63.	Cranial nerves X, XI, XII pairs. Nuclei, course, branches, topography, areas of innervation
64.	Spinal nerves. Neck plexus. Shoulder plexus. Formation, topography, branches, areas of innervation. preparation
65.	Spinal nerves. Thoracic nerves. Lumbar and sacral plexuses. Formation, topography, branches of the region of innervation

### **List of main and additional literature:**

#### **Main literature:**

1. B.D.Chaurasia's "Human Anatomy"
2. Textbook of Anatomy Vishram Singh
3. Gray's Anatomy for students
4. 3D-Atlas Anatomy complete 2022

#### **Additional literature:**

1. Sapin, M.R. Human anatomy: textbook. allowance for students. higher textbook institutions: in 2 books. / M. R. Sapin, Z. G. Bryksina. - M.: Academy, B.g. - (Higher professional education). Book. 2. 2006.
2. Weight gain, M. G. Human anatomy: Proc. / M.G. Prives, N.K. Lysenkov, V.I. Bushkovich. - 11th ed., revised. and additional - St. Petersburg: Hippocrates, 2001.

#### **Internet resources:**

<http://www.edu.ru>  
<http://www.medicina.ru>  
<http://www.knigafund.ru/books/87656>

### **Monitoring and evaluation of learning outcomes**

#### **The content of the rating system for assessing student performance**

The rating assessment of students' knowledge in each academic discipline, regardless of its total labor intensity, is determined on a 100 (one hundred) - point scale and includes current, boundary, intermediate and final control.

The distribution of rating scores between types of control is established in the following ratio (according to the table of the score-rating system of assessments):

<b>Form of control</b>				
current (CC)*	boundary control (BC)**	mid-term exams (MC)***	Final /exam (FE)	Discipline Rating (RD)

0-100 points	0-100 points	0-100 points	0-100 points	0-100 points, with the translation of points into a letter designation
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Note:

\* TK(*middle*) =  $\frac{\sum_1^n \times point}{\sum_1^n}$ , where n is the number of types of classroom and extracurricular work of students in the discipline;

\*\*PK (*middle*) =  $\frac{\sum_1^n credit \times point}{\sum_1^n credits}$ , where n is the number of modules (credits) in the discipline;

\*\*\*ПК (*middle*) =  $\frac{\sum_1^n \times point}{\sum_1^n}$ , where n is the number of intermediate controls (2 controls per semester: in the middle and at the end of the semester) by discipline;

\*\*\*\*ИК – examination conducted at the end of the study of the discipline

;

\*\*\*\*\*РД =  $\frac{TK_{cp} + PK_{cp} + ПК_{cp} + ИК}{4}$ , the final rating of the results of all types of control at the end of the discipline;

GPA =  $\frac{\sum_1^n \times балл}{\sum_1^n}$  where, n is the number of disciplines in the semester (for the past period of study).

A student who has not passed the current, boundary and intermediate controls to the final control (exam) is not allowed.

**The current control** is carried out during the period of classroom and independent work of the student on time according to the schedule, at the end of the study of the discipline, the average score of the current control (CC) is calculated. *Forms of current control can be:*

- testing (written or computerized);
- performance of individual homework assignments, abstracts and essays;
- student's work in practical (seminar) classes;
- various types of colloquia (oral, written, combined, express, etc.);
- control of performance and verification of reporting on laboratory work;
- visiting lectures and practical (seminar, laboratory) classes;
- Incentive rating (up to 10 points).

Other forms of current monitoring of results are also possible, which are determined by the teachers of the department and recorded in the work program of the discipline.

**The frontier control** is carried out in order to determine the results of the student's development of one credit (module) as a whole. *Frontier control* should be carried out only in writing, at the end of the study of the discipline, the average score of boundary control (BC) is calculated. As forms of *frontier control* of the training module, you can use:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

**Intermediate control (mid-term exams)** is carried out in order to check the completeness of knowledge and skills in the material in the middle and end of the semester (2 times per semester) of studying the discipline, by the end of the study of the discipline, the average score of intermediate control (PCsr) is calculated, *forms of intermediate control (mid-term exams) can be:*

- testing (including computer testing);
- interview with written fixation of students' answers;
- test.

Other forms of intermediate control of results are also possible.

**The final control** is carried out during the session, by conducting an exam, it can be carried out in the following forms:

- testing (including computer testing);
- written exam (ticketing system).

**Correspondence of the point-rating system of assessments used by the institute and the assessments of the European system for the transfer of credit units, labor intensity (ECTS)**

Grade						Criterion
System of letters	digital system	Traditional system	Points (%)	Scored points (max - 100)	Evaluation by discipline without an exam	
A	4	5	95-100	95-100	Credited/ passed	"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic and additional literature on the discipline
A-	3,67		90-94	90-94		"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic literature on the discipline, but is not familiar with additional literature
B+	3,33	4	85-89	70-89		"Good" - exhibited to a student who has shown a systematic and comprehensive knowledge of the educational material, able to independently replenish and update this knowledge in the course of training, performing practical tasks, familiar with the main literature on the discipline
B	3,0		80-84			"Good" is given to a student who has shown a systematic and comprehensive knowledge of the educational material, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
B-	2,67		75-79			"Good" - is given to a student who has shown the systematic nature of knowledge in the discipline, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
C+	2,33		70-74			"Satisfactory" - is given to a student who does not have a systematic nature of knowledge in the discipline, who is not capable of independently replenishing and updating knowledge in the course of further education, performing practical tasks with errors
C	2,0	3	65-69	50-69		"Satisfactory" - is given to a student who made mistakes in completing assignments, but who has the necessary knowledge to eliminate them under the guidance of a teacher
C-	1,67		60-64			"Satisfactory" - is set to a student who made errors in the performance of tasks, but who has the possible knowledge to eliminate them under the guidance of a teacher
D+	1,33		55-59			"Satisfactory" - is set to a student who made errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
D-	1,0		50-54			Satisfactory" - is given to a student who has made significant errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
FX	0,5	2	25-49	Less of 50	not credited/not passed	"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them
F	0		0-24			"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them, even under the guidance of a teacher

**Academic achievement requirements:**

Attendance by students of all classroom classes without delay is mandatory.

In case of absence, classes are worked out in the order established by the dean's office.

If there are three passes, the teacher has the right not to allow the student to attend classes until the issue is administratively resolved.

If the absence of classes is more than 20.0% of the total number of classes, the student automatically enters the summer semester.

**Note to the student:**

- ✓ regularly review lecture material;
- ✓ Do not be late and do not miss classes;
- ✓ work off missed classes if you have permission from the dean's office;
- ✓ Actively participate in the classroom (individually and in groups;)
- ✓ timely and fully complete homework assignments;
- ✓ submit all assignments within the time specified by the teacher;

- ✓ independently study the material in the library and at home;
- ✓ timely and accurately fulfill the tasks of the teacher, individual tasks for the IWS to achieve learning outcomes;
- ✓ to master the basic and additional literature necessary for the study of the discipline;
- ✓ performing tasks, the student should not copy or reproduce the work of other students, scientists, practitioners, plagiarism;
- ✓ develop their intellectual and oratory skills;

In case of non-compliance with the requirements of the Memo, the student will be penalized in the form of deducting points (one point for each violated item).

If the requirements of the Memo are fully met, the student is encouraged in the form of an additional 10 points to the final control in the discipline.

### **Academic Integrity, Conduct and Ethics Policy:**

- turn off your cell phone during class;
- Be polite;
- respect other people's opinions;
- formulate objections in the correct form;
- do not shout or raise your voice in the audience;
- independently complete all semester assignments;
- Eliminate plagiarism from your practice;

### **Methodical instructions.**

It is recommended to organize the time required to study the discipline as follows:

***When preparing for a practical lesson***, you must first read the abstract with the teacher's explanations.

***When performing exercises***, you must first understand what you want to do in the exercise, then proceed to its implementation.

***Literature work***. The theoretical material of the course becomes more understandable when books are studied in addition to the abstract. After studying the main topic, it is recommended to perform several exercises.

***Preparation for boundary and intermediate controls***. In preparation for the boundary and intermediate control, it is necessary to study the theory: the definitions of all concepts before understanding the material and independently do several exercises.

***Independent work of students*** is organized on all studied topics of each section. Independent work is carried out in the form of:

- work in Internet sites;
- work with basic and additional literature;
- fulfillment of written assignments;
- preparation of reports, abstracts, tables and posters on