MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC

Government-run educational institution of higher professional education
Kyrgyz-Russian Slavic University named after B.N. Yeltsin

«ENDORSED» BY VICE RECTOR
Prof Anes Zarifyan
28. 02. 2023 year.

Anatomy
Course Outline (Module)

Assigned to the department **Anatomy, topographic anatomy and operative surgery**

Academic curriculum 560001_23_1LDi.pli.xml
560001 KR General Medicine (for foreign student)

Qualification	specialist
Mode of study	intramural
Total credit value	10 credit

Course hours	360
including:	
in-class learning	252
individual work	72
exams	36

Scope of testing in semesters:
exams 2
credits 1

Course hours scheduling (per semester)

semester (course> < semester on the	1 (1.1)		2 (1.2)		total	
weeks	18		19			
Type of training	AC	CO	AC	CO	AC	CO
Lectures	36	36	36	36	72	72
Practical session	90	90	90	90	180	180
Total class session	126	126	126	126	252	252
Including interactive session	6	6	7	7	13	13
Individual work	54	54	18	18	72	72
Face to face learning	126	126	126	126	252	252
Control			36	36	36	36
Total	180	180	180	180	360	360

The course outline developed by: cms, Assesion professor of "Anatomy and OSHTA" YGaivoronskaya,

Asstsion Professor of "Anatomy and OSHTA" A. Imanalieva _____

Reviewer: the head of the department of histology, embryology, cytology Ph.D, Associate Professor Kalugina O.P. _____

Reviewer: International University of Kyrgyzstan. Head of the Department of Macro and microanatomy Ph.D., Associate Professor Akmatov N.A. _____

The course outline

ANATOMY

in accordance with Academic Curriculum:
Specialty 560001 - KR – General Medicine (for foreign students)
confirmed by KRSU board of academics in 28.02.2023 y. record № 7

The course outline endorsed by
Anatomy, topographic anatomy and operative surgery

Protocol by "_28_" _02__ 2023 y. № _7__
valid for: 2023-27 academic year
The head of department associate B. Gubanov _____

The course outline endorsed for the academic year

Chairman of the educational and methodological board

28 09 2023 year.

The course outline has been revised, considered and endorsed for implementation in 2023-2024 academic year at the staff meeting of histology, embryology, cytology department

Record of 28 09 2023 year № 2
The head of department associate Gubanov B.P.., CBC

The course outline endorsed for the academic year

Chairman of the educational and methodological board

__ _____ 2024 year.

The course outline has been revised, considered and endorsed for implementation in 2024-2025 academic year at the staff meeting of histology, embryology, cytology department

Record of __ _____ 2024 year № __
The head of department associate , Gubanov B.P.,CBC

The course outline endorsed for the academic year

Chairman of the educational and methodological board

__ _____ 2025 year.

The course outline has been revised, considered and endorsed for implementation in 2025-2026 academic year at the staff meeting of histology, embryology, cytology department

Record of __ _____ 2025 year № __
The head of department associate Gubanov B.P., CBC

Рецензия

на рабочую программу дисциплины «Анатомия человека»

для студентов иностранцев

В ряду медицинских дисциплин анатомии принадлежит ведущая роль. Как нельзя научиться читать, не зная букв алфавита, так нельзя стать хорошо подготовленным специалистом – медиком, не имея необходимых сведений о строении человеческого тела.

Анатомию человека следует представить, как фундаментальную дисциплину, содержащую основные теоретические сведения о строении организма, изучение которых поможет врачам самостоятельно и осознано решать профессиональные проблемы, связанные с клинической практикой.

Лекции по анатомии человека носят узловой, объективный характер, отражают новейшие достижения науки, в том числе результаты научных исследований сотрудников кафедры.

Практические занятия со студентами являются определяющими при изучении предмета. Основное внимание на практических занятиях уделяется организации самостоятельной работы студентов: изучению анатомических моделей, препарированию органов, возрастной и индивидуальной анатомии органов, сосудисто–нервных образований, используя для этих целей демонстративные и музейные препараты. Изучение предмета завершается экзаменом в тестовой и устной форме.

Предусмотренное распределение часов позволяет в полном объеме изучить основы анатомии человека применительно к клиническим условиям, что соответствует международному стандарту.

Зав. кафедрой
Гистологии, эмбриологии и цитологии
мед. факультета Кыргызско–Российского
Славянского Университета им. Б.Н. Ельцина
К.м.н., доцент О.П. Калугина

ОТДЕЛ КАДРОВ

ПОДПИСЬ ЗАВЕРЯЮ
ОК ГОУВПО КРСУ
ИНН 01512199310054

Рецензия

на рабочую программу дисциплины «Анатомия человека» для студентов иностранцев

В учебном плане университетов с медицинским факультетом важное место занимает предмет анатомии человека, который обеспечивает преемственность преподавания общетеоретических и клинических дисциплин.

Морфологическое и эволюционное рассмотрение фактических данных об особенностях организма человека в курсе общей анатомии человека имеет огромное значение для последующего изучения патологии, так как способствует пониманию закономерностей природы здорового и больного человека.

В процессе обучения анатомии человека рассматриваются индивидуальные, половые и возрастные особенности организма, включая основы пренатального развития (органогенез). В процессе преподавания анатомии человека у студентов воспитываются этические нормы поведения в анатомическом театре, уважительнее и бережное отношение к органам человеческого тела и трупу, которые студенты изучают во имя живого человека. План лекций и практических занятий составлен четко и отражает основные этапы и методы изучения анатомии.

Считаю, что данная рабочая программа соответствует требованием государственного стандарта и позволяет в полном объеме изучить основы анатомии человека применительно к клиническим условиям.

Зав. кафедрой Макро и микроанатомии
МШМ УНПК МУК
К.м.н., и.о. доцента Акматов Н.А.

Review

on course outline the discipline "Human anatomy" for foreign student

In a number of medical disciplines the anatomy belongs the leading role. As you can not learn to read without knowing the letters of the alphabet, you can not become a good medical specialist without necessary information about structure of the human body.

The human anatomy should be submitted as a fundamental discipline including the main theoretical information about structure of organism, learning which will help physicians independly and mentally decide professional problems that are concerned with clinical practice.

The lectures of Human anatomy have nodal, objective character, reflecting the latest achievement of science including the results of scientific research the department's co-workers. The practical classes with students are decisive in the subject study. Main attention at practical classes is given to the organization of independent work: training the anatomical models, dissection of organs, age and individual anatomy, vasculum-nervous formation, using for these purposes demonstration and museum specimens. Studying the subject is finished by passing the exam in test and viva.

Envisaged distribution of hours are allowed in complete volume studying the basics of Human anatomy in relation to clinical condition that complies with international standard.

Kyrgyz-Russian Slavic University

named after B.N. Yeltsin

Head of Department

of Histology, embryology, cytology

Ph.D, Associate Professor Kalugina O.P.

ОТДЕЛ КАДРОВ

ПОДПИСЬ ЗАВЕРЯЮ
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Review

on course outline the discipline "Human anatomy" for foreign student

In the curriculum of the universities with medical faculty an importin place is occupied by the Human anatomy which ensures the continuity of teaching common theoretical and clinical disciplines.

Morphological and evolutionary evidence review about specially of human organism in course of common human anatomy is of great importance for subsequent study pathology because it promotes understanding the patterns of nature a healthy and sick man. In the learning process of the Human anatomy are considered the individual, sex and age properties of the organism including the basic of prenatal development. In the process of teaching the Human anatomy the ethical standards of conduct are brought up by students in anatomical theater, respectful and careful for the human's organs and corpse that are studying in the name of a living person. The plane schedule of lectures and practical classes is written clearly and reflected the milestones and methods studying the anatomy.

In think that this course outline complies with the requirement of the state standard and allows fully studying the basics of the Human anatomy applied to clinical conditions.

International University of Kyrgyzstan

Head of the Department

of Macro and microanatomy

Ph.D., Associate Professor Akmatov N.A.

1. COURSE OUTLINE OBJECTIVES	
1.1	To study the structure of the human body, composing systems and organs based on modern achievement of the anatomy and biology according to the goal of the successive training the students on the theoretical and clinic departments of the university
1.2	In the process of the studying of the human anatomy to consider the individual, sexual and age features of the organism, to show the variability of the organs and abnormality of development
1.3	When studying the anatomy of the organs and systems, instill the understanding of the structures the whole organs, connecting between their separate parts
1.4	To reveal the theoretical and practical meaning of the major discoveries in human anatomy. To emphasize the contribution of the native scientists in development of the different parts of the anatomy
1.5	In the process of teaching of the human anatomy bring up the ethical behavior in the anatomical theater, respectfully and carefully refers to organs of the human body and to the corpse

2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM	
Educational Program Unit	
2.1	**Student's Preliminary Training Requirements:**
2.1.1	Biology
2.1.2	Chemistry
2.2	**Course Units and Practical Sessions imposing the prior Proficiency**
2.2.1	Pediatrics
2.2.2	Traumatology, orthopedy
2.2.3	Stomatology
2.2.4	Children's surgery
2.2.5	Ophthalmology
2.2.6	Hospital surgery
2.2.7	Hospital therapy
2.2.8	Urology
2.2.9	Faculty surgery
2.2.10	Common surgery
2.2.11	Topographical anatomy and operative surgery
2.2.12	Obstetrics and gynecology
2.2.13	Endocrinology
2.2.14	Otorhinolaryngology
2.2.15	Histology, fetology, cytology

3. STUDENTS' COMPETENCIES RESULTING FROM THE COURCE UNIT (MODULE)	
OPC-9: the ability to assess the morphofunctional, physiological states and pathological processes in human body for solving professional problems.	
Knowledge:	
Level 1	The common patterns in structure of human body, structural and functional relations in their parts. The methods of anatomical research and anatomic terminology.

Level 2	Anthropogenesis and ontogenesis; the basic patterns in evolution and vital activity of human organs according structural architecture of cells and tissues. Anatomo-topographical relations of organs and their parts in adult, children and teenagers. The main parts in structure and topography of organs and their systems, their main functions in various age periods. The variants in structure abnormalities and congenital anomalies of organs and systems.
Level 3	Applied value of the received knowledge in anatomy of the adult, children and teenagers for future education and further professional activity. Value of basic researches of the anatomic science for practical and theoretical medicine.
Skills:	
Level 1	Correctly to use anatomic instruments (forceps, scalpel, etc.). On anatomical models find and show the organs, their parts, detail in their structure, correctly. Correctly oriented in topography and details of a structure in organs of anatomical model.
Level 2	By method of dissection find and distinguished the muscle and fascias, large vessels, nerves and ducts of glands. On x-ray films find and show the organs and their main structure.
Level 3	On the body find and palpate the main bony and muscular outstanding points; correctly named and show the movements in joints.
Expertise:	
Level 1	To use the scientific literature. To use basic technologies transformation of the information.
Level 2	Individual work with the educational literature on paper and electronic media, to use Internet resources about human anatomy.
Level 3	To use the anatomical terminology. To use in methods dissection the medical instruments - scalpel and forceps.

Final Students' Competences

3.1	**Knowledge:**
3.1.1	The methods of anatomical researching and anatomical terminology;
3.1.2	The main stages in development of anatomical science, the role of anatomy for medicine and biology;
3.1.3	The main trends in human anatomy, traditional and modern methods of anatomical researches;
3.1.4	The basis of anatomical terminology;
3.1.5	The common patterns of human organization, structural and functional interrelations of the body's parts;
3.1.6	The role of fundamental researches in anatomical science for practical and theoretical medicine;
3.1.7	The anatomical and topographic interrelations of organs and their parts in adult, children and teenagers;
3.1.8	The main details of organization and topography in organs and their systems, their main functions in different age
3.1.9	The possible variants of organization, abnormalities and congenital anomalies of organs and their systems;
3.1.10	The applied meaning of acquired knowledge in anatomy of adult, children and teenagers for the following education and further – for professional activity.
3.2	**Skills:**
3.2.1	To use anatomical instruments correctly (forceps, scalpel and etc.);
3.2.2	On anatomical models find and show organs, their parts, and structural components;
3.2.3	On anatomical models orient in topography and structure of organs; show their parts;
3.2.4	By method of dissection find and distinguished the muscles and fascias, vessels, nerves, ducts of glands, separate organs;
3.2.5	On x-ray films find and show the organs and their main structure;
3.2.6	On the body find and palpate the main bony and muscular outstanding points; correctly named and show the movements in joints;
3.2.7	To use scientific literature;
3.3	**Expertise:**
3.3.1	To use basic technologies transformation of the information;
3.3.2	Individual work with the educational literature on paper and electronic media, to use Internet resources about human;

3.3.3	To use in methods dissection the medical instruments - scalpel and forceps;

4. COURSE (MODULE) STRUCTURE AND CONTENT

Class code	Subject Name /Type of Class/	Semester Academ. Year	Hours	Competencies	Literature	Interactive Session	Notes
	Subject 1 «OSTEOSYNDESMOLOGY, SKULL»						
1.1	Introduction to human anatomy. Osteology – theory of bones. Axes and planes. Anatomical terminology. /Lect./	1	2	ОРС-9	L1.1 L1.3 L2.3 L3.1	0	
1.2	Syndesmology – theory of bones joints. /Lect./	1	2	ОРС-9	L1.1 L3.1	0	
1.3	Anatomy – as science. Axes, planes, anatomical terminology. /Pr./	1	2	ОРС-9	L1.1 L1.4 L3.1	0	
1.4	Osteology – vertebrae. / Pr./	1	3	ОРС-9	L3.1	0	
1.5	Ribs, sternum, scapula, clavicula. /Pr./	1	2	ОРС-9	L1.1 L2.2 L3.1	0	
1.6	Free upper limb bones – humerus, radial, ulnar bones. Hand bones. / Pr./	1	3	ОРС-9	L1.1 L1.2 L3.1	0	
1.7	Bones of pelvis and free lower limb – femoral bone, tibial, fibular, bones of foot. / Pr./	1	3	ОРС-9	L1.1 L1.3 L3.1	0	
1.8	General syndesmology. Vertebrae joints. Vertebral column as a whole. Joints of thorax. Thorax as a whole. / Pr./	1	3	ОРС-9	L1.3 L2.1 L3.1	0	
1.9	Bones joints of shoulder girdle. Shoulder joint, elbow joint, wrist joint, joints of hand. / Pr./	1	2	ОРС-9	L1.3 L2.1 l3.1	0	
1.10	Joints of pelvic bones. Hip joints, knee joint, ankle joint, joints of the foot. / Pr./	1	3	ОРС-9	L1.3 L2.3 L3.1	1	Operation on interactive desktop of "Pirogov"
1.11	Developmental variation of skeleton. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In./	1	9	ОПК-9	L2.1 L2.2	0	
1.12	CS: « OSTEOSYNDESMOLOGY » / Pr./	1	2	ОРС-9	L1.3 L2.1 L3.1	0	
1.13	Skull. /Lect./	1	2	ОРС-9	L1.3	0	
1.14	Skull. Cerebral bones– parietal, frontal, occipital, ethmoidal. /Pr./	1	3	ОРС-9	L1.1 L1.3 L2.3 L3.2	1	Operation in small groups. Operation on interactive anatomic desktop of
1.15	Sphenoid, temporal bones. /Pr./	1	3		L1.3 L 3.2	0	
1.16	Facial bones. Orbit. Bones of nasal cavity, fossae. /Pr./	1	3	ОРС-9	L1.3 L2.1 L3.2	0	

1.17	Skull as a whole. Articulation of skull bones. Temporo-mandibular joint. External and internal surfaces, vault and base of skull. /Pr./	1	2	ОРС-9	L1.2 L1.3 L3.2	0	
1.18	Variants and abnormal development of skull bones. Age peculiarities. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	1	9	ОРС-9	L1.5 L2.1 L2.3L3.2	0	
1.19	CS: «SKULL» /Pr./	1	3	ОРС-9	L3.2	0	
	Subject 2 «MYOLOGY»						
2.1	General muscles anatomy /Lect./	1	2	ОРС-9	L1.1 L1.3	0	
2.2	Biomechanics of muscles and appendicular joints. /Lect./	1	2	ОРС-9	L1.1 L1.3	0	
2.3	The topography of muscles /Lect/	1	2	ОРС-9	L 1.1 L1.3	0	
2.4	Introduction to myology. Muscles and fascia of head and neck. Triangles of neck. Fascia of neck. /Pr./	1	2	ОРС-9	L1.1 L2.1 L3.3	0	
2.5	Muscles and fascia of chest, back, abdomen. Topographical features. Weak places of abdomen walls. Diaphragm. /Pr./	1	3	ОРС-9	L1.3 L2.1 L3.3	0	
2.6	Muscles and fascia of shoulder girdle and arm. Muscles and fascia of forearm and hand. Topography of upper limb. /Pr./	1	2	ОРС-9	L1.3 L1.4 L3.3	0	
2.7	Muscles and fascia of pelvis, femur, leg and foot. Topography of lower limb. /Pr./	1	3	ОРС-9	L1.3 L1.4 L3.3	1	Situational task on the theme "Anatomy of fascia and cellular spaces of the head and neck»
2.8	Variants of muscles development, their topography. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	1	9	ОРС-9	L1.5 L2.2 L2.3	0	
2.9	CS: «MYOLOGY» /Pr./	1	2	ОРС-9	L3.3	0	
	Subject 3 «DIGESTIVE SYSTEM»						
3.1	Introduction of digestive system /Lect./	1	2	ОРС-9	L1.1 L1.4	0	
3.2	The anatomy of digestive tract /Lect./	1	2	ОРС-9	L1.1 L1.4 L2.1	0	
3.3	The accessory organs of the digestive system. /Lect./	1	2	ОРС-9	L1.4 L2.1	0	
3.4	Anatomy of peritoneum /Lect./	1	2	ОРС-9	L1.2 L1.4	0	
3.5	General review of digestive organs. Oral cavity. Salivary glands. Tongue, teeth. /Pr./	1	3	ОРС-9	L1.4 L3.4	0	
3.6	Pharynx, esophagus, stomach. /Pr./	1	2	ОРС-9	L1.2 L3.4	0	
3.7	Small and large intestine. /Pr./	1	3	ОРС-9	L1.2 L2.1 L3.4	0	
3.8	Liver. Pancreas. /Pr./	1	2	ОРС-9		0	

3.9	Spleen. Peritoneum. Arrangement of the peritoneum. Age peculiarities. /Pr./	1	3	ОРС-9	L1.2 L2.1 L3.4	1	Work on the interactive desk of the "Pirogov".
3.10	Abnormal development of digestive organs. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /Iw/.	1	9	ОРС-9	L1.2 L2.1 L3.4	0	
3.11	CS: «DIGESTIVE SYSTEM» /Pr./	1	2	ОРС-9	L3.4	0	
	Subject 4 «RESPIRATORY SYSTEM»						
4.1	General review of respiratory system. /Lect./	1	2	ОРС-9	L1.3 L1.4	0	
4.2	Respiratory organs. Nasal cavity. Paranasal sinuses. Larynx, trachea. /Pr./	1	3	ОРС-9	L1.2 L1.4 L3.5	0	
4.3	Bronchial tree. Lungs. Thyroid, parathyroid glands. /Pr./	1	3	ОРС-9	L1.4 L2.1 L3.5	0	
4.4	Mediastinum. Pleura. Thymus gland. /Pr./	1	3	ОРС-9	L1.1 L1.3 L3.5	1	Project method and group discussion on the topic "The respiratory system". Work on the interactive desk of the "Pirogov".
4.5	Abnormalities and variants of respiratory organs development. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	1	9	ОРС-9	L1.4 L2.1 L2.3	0	
4.6	CS: « RESPIRATORY SYSTEM» /Pr./	1	2	ОРС-9	L3.5	0	
	Subject 5 «UROGENITAL SYSTEM»						
5.1	General review. Urinary system. /Lect./	1	2	ОРС-9	L1.4 L2.1	0	
5.2	General review of reproductive system /Lect./	1	2	ОРС-9	L1.4 L2.1 L2.2	0	
5.3	The functional anatomy of reproductive system /Lect./	1	2	ОРС-9	L1.4 L2.1 L2.3	0	
5.4	Endocrine system. /Lect./	1	2	ОРС-9	L1.1 L2.1	0	
5.5	Excretory organs. Kidneys, suprarenal glands. /Pr./	1	3	ОРС-9	L1.1 L1.4 L3.6	0	
5.6	Ureter, urinary bladder. Female urethra. /Pr./	1	2	ОРС-9	L1.4 L2.1 L3.6	0	
5.7	Male genital organs. /Pr./	1	3	ОРС-9	L1.2 L1.4 L3.6	0	
5.8	Female genital organs. /Pr./	1	2	ОРС-9	L1.1 L1.4 L3.6	0	
5.9	Male and female perineum. /Pr./	1	3	ОРС-9	L1.1 L1.4 L3.6	1	Work in small groups
5.10	Abnormalities and variants of urinary organs, age peculiarities of masculine and female genital organs. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	1	9	ОРС-9	L1.4 L2.1 L3.6	0	
5.11	CS: « UROGENITAL SYSTEM» /Pr./	1	2	ОРС-9	L3.6	0	

5.12	Radioanatomy of internal organs with use of MRI, U/S, NMR elements. /Lect./	1	2	ОРС-9	L1.1 L1.4 L2.2	0	
5.13	The functional anatomy of internal organs /Lect./	1	2	ОРС-9	L1.1 L1.2	0	
5.14	Reworks of skipped lectures /Lect/	1	2	ОРС-9	L1.1 L1.4	0	
5.15	Credit class /Pr./ /Credit/	1	0			0	
	Subject 6 «CNS»						
6.1	Introduction to neurology. /Lect./	2	2	ОРС-9	L1.1 L1.2 L2.1	0	
6.2	Physiologic anatomy of brainstem. /Lect./	2	2	ОРС-9	L 1.3 L1.5 L2.1	0	
6.3	The functional anatomy of cerebellum and diencephalon /Lect/	2	2	ОРС-9	L1.2 L1.4	0	
6.4	Morphology of cerebral cortex. /Lect./	2	2		L1.1 L1.3 L2.2	0	
6.5	Pathways of the central nervous system. /Lect./	2	2	ОРС-9	L1.5 L2.2	0	
6.6	Introduction to neurology. Spinal cord. Radixes. Segments. /Pr./	2	2	ОРС-9	L1.2 L3.7	0	
6.7	Topography of nucleus and conduction tracts of gray and white matter of spinal cord. /Pr./	2	3	ОРС-9	L1.2 L3.7	0	
6.8	Review of brain. Embryogenesis. Medulla oblongata. Pons. Rhomboid fossa. IV ventricle. /Pr./	2	2	ОРС-9	L1.1 L2.2 L3.7	0	
6.9	Cerebellum. Midbrain. Features, conducting tracts. /Pr./	2	3	ОРС-9	L1.3 L1.5 L3.7	0	
6.10	Diencephalon. III ventricle. /Pr./	2	2	ОРС-9	L1.2 L1.3 L 3.7	0	
6.11	Morphology of cerebral hemispheres – gyrus, sulcus. Cortical analyzers. Limbic system. /Pr./	2	3	ОРС-9	L1.5 L2.2 L3.7	0	
6.12	White matter of hemispheres. Basal nuclei. Lateral ventricles. /Pr./	2	2	ОРС-9	L1.1 L2.2 L3.7	0	
6.13	Meninges of brain and spinal cord. Conducting tracts of spinal cord and brain. /Pr./	2	3	ОРС-9	L1.2 L2.2 L3.7	1	Creative task
6.14	Abnormal development of spinal cord and brain. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L1.5 L2.2 L3.7	0	
6.15	CS: «CNS» /Pr./	2	2	ОРС-9	L3.7	0	
	Subject 7 «Sensory organs»						
7.1	Physiologic anatomy of visual organ. /Lect./	2	2	ОРС-9	L1.3 L2.1	0	
7.2	Physiologic anatomy of organs of equilibrium and hearing. /Lect./	2	2	ОРС-9	L1.3 L2.1	0	
7.3	Anatomy of the skin. Organs of taste and smell /Lect./	2	2	ОРС-9	L1.1 L2.2	1	Discation table "Skin"
7.4	Visual organ. Eyeball. Auxiliary eye apparatus. Optic tract. /Pr./	2	3	ОРС-9	L1.3 L1.4 L3.8	0	
7.5	Auxillary eye apparatus. Optic tract /Pr/	2	2	ОРС-9	L1.3 L2.1 L3.8	1	
7.6	External and middle ear. /Pr./	2	3	ОРС-9	L1.3 L2.2 L3.8	0	
7.7	Internal ear. Cochlear, vestibular tract. Skin organs of taste and smell /Pr./	2	2	ОРС-9	L1.3 L2.2 L3.8	0	

7.8	Abnormal and various development of sense organs: eye, ear. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L2.1 L2.2 L2.3	0	
7.9	CS: «Sensory organs». /Pr./	2	3	ОРС-9	L3.8	0	
	Subject 8 «Heart, vessels and nerves of head, neck»						
8.1	Cranial nerves. General characteristics. /Lect./	2	2	ОРС-9	L1.3 L2.1 L3.9	0	
8.2	Introduction to angiology. Heart. /Lect./	2	2	ОРС-9	L1.3 L2.1 L3.8	0	
8.3	Cervical plexus. Cranial nerves– XII, XI, III, IV, VI pairs. /Pr./	2	2	ОРС-9	L1.3 L2.4 L3.9	0	
8.4	Trigeminal nerve (V pair) – I, II, III branches. /Pr./	2	2	ОРС-9	L1.3 L2.4 L3.9	0	
8.5	VII, IX, X pairs of cranial nerves. Ganglion along the V	2	2	ОРС-9	L1.5 L2.2 L3.8	0	
8.6	Heart – features, valves. /Pr./	2	3	ОРС-9	L1.5 L2.2 L3.10	0	
8.7	Heart – topography, blood supply, innervation. /Pr./	2	2	ОРС-9	L1.5 L2.2 L3.10	0	
8.8	Branches of aortic arches. Common, external, internal carotid artery. /Pr./	2	3	ОРС-9	L1.5 L2.2 L3.10	0	
8.9	Subclavian artery. Veins of head and neck. Lymph. /Pr./	2	2	ОРС-9	L1.4 L1.5 L2.2 L3.10	1	The creative task "The heart, the blood circuits"
8.10	Heart abnormalities. Anastomosis. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L1.4 L1.5 L2.2	0	
8.11	CS: «Heart, vessels and nerves of head and neck». /Pr./	2	3	ОРС-9	L3.10	0	
	Subject 9 «Vessels and nerves of cavities»						
9.1	Arterial system of human body. /Lect./	2	2	ОРС-9	L1.1 L1.2	0	
9.2	Venous system. /Lect./	2	2	ОРС-9	L1.1 L1.5 L2.2	0	
9.3	Lymphatic system. Immune organs. /Lect./	2	2	ОРС-9	L1.5 L2.2 L3.8	0	
9.4	Vegetative nervous system. /Lect./	2	2	ОРС-9	L1.2 L1.5 L2.2	0	
9.5	Arteries, veins and nerves of thorax. Lymph. /Pr./	2	2	ОРС-9	L1.2 L1.5 L3.10	0	
9.6	Abdominal cavity arteries. /Pr./	2	3	ОРС-9	L1.2 L1.4 L3.10	0	
9.7	Abdominal cavity veins. Systems of portal and inferior vena cava. Lymph. Veins anastomosis. /Pr./	2	2	ОРС-9	L1.4 L3.10	0	
9.8	Arteries, veins of pelvis. Lymph. /Pr./	2	3	ОРС-9	L1.2 L2.2 L3.10	0	
9.9	Lumbar plexus. Short branches of sacral plexus. /Pr./	2	2	ОРС-9	L1.2 L2.2 L3.8	0	
9.10	Vegetative nervous system. /Pr./	2	3	ОРС-9	L1.1 L2.2 L3.10	1	Works small group

9.11	Autonomic ganglion along VII pairs of cranial nerves. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L1.5 L2.2 L2.3	0	
9.12	CS: «Vessels and nerves of cavities». /Pr/	2	2	ОРС-9	L3.9 L3.10	0	
	Subject 10 «Vessels and nerves of limbs»						
10.1	Peripheral nervous system. /Lect./	2	2	ОРС-9	L1.1 L1.4	0	
10.2	Nerovascular formations of the cavities and limbs /Lect./	2	2	ОРС-9	L1.5 L2.2 L2.3	0	
10.3	History of anatomy. /Lect./	2	2	ОРС-9	L1.1 L1.3	0	
10.4	Arteries, veins, lymph of upper limb. /Pr./	2	3	ОРС-9	L3.10	1	Round table "Vessels and nerves of the limbs." Interactive anatomical table of the "Pirogov"
10.5	Brachial plexus, branches. /Pr./	2	2	ОРС-9	L1.4 L3.9	0	
10.6	Arteries, veins, lymph of lower limb. /Pr./ /Пр/	2	3	ОРС-9	L1.4 L3.10	0	
10.7	Long branches of sacral plexus. /Pr./	2	2	ОРС-9	L1.4 L3.9	1	Round table "Vessels and nerves of the limbs." Work on the interactive desk of the "Pirogov"
10.8	Peculiarities of limbs peripheral innervation. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L1.2 L1.4 L3.10	0	
10.9	CS: «Vessels and nerves of limbs». /Pr./	2	2	ОРС-9	L3.9 L3.10	0	
10.10	Reworks of skipped lecture. /Lect./	2	3	ОРС-9	Л1.2 Л2.2 Л3.9 L3.10	0	
10.11	Preparation for exams. Work with literature recourses and etc., including in an interactive way. Work with electronic learning resources. /In/	2	3	ОРС-9	L3.1 L3.2 L3.3 L3.4 L3.5 L3.6 L3.7	0	
10.12	Testing. /Pr./	2	5	ОРС-9	L3.8 L3.9 L3.10	0	
10.13	Exam / Exam/	2	36	ОРС-9		0	

5. ASSESSMENT FUND

5.1. Advancement Questions and Assignments

Questions to check the level of training
KNOWLEDGE

Subject 1 «OSTEOSYNDESMOLOGY»

The human anatomy.
Direction in the body. Planes and axis.
The function of the skeleton.
The chemical composition of the bone.
Bone classification.
Bone as an organ. Periosteum.

The age features of bone.
The development of the bones. The types of the ossification.
The points of ossification.
The atypical cervical vertebraes (I, II, VI, VII).
The atypical thoracic vertebraes (I, X, XI, XII).
The synarthroses.
The diarthroses (synovial joint).
The hemiarthroses.
Joint classification according to the number of articular surfaces.
Joint classification according to shape and function.
The development of joints.
Intervertebral joints.
Atlanto-occipital joints. Atlanto-
axial joints.
Costo vertebral and costo transverse joints
Sternocostal joints.
Thorax as a hole.
Vertebral column as a hole, the curvatures.
Sternoclavicular joint.
Acromioclavicular joint.
Shoulder joint.
Elbow joint.
Wrist joint.
Joints of the hand and fingers
Symphysis pubis.
Sacroiliac joint.
The pelvis (as a hole).
Hip joint.
Knee joint.
Joint of the leg bones.
Ankle joint.
Joints the bones of the foot.
Foot as a hole.

«SCULL»

Development of cerebral skull.
Development of visceral skull.
Age features of the skull.
The periods in the growth of the skull.
Criticism of the racist the “theory”.
The first visceral arch, features.
The second visceral arch, features.
The third visceral arch, features.
The sutures of the skull.
The skull of the newborn.
The synchondroses of the skull.
The temporomandibular joint.
Orbit, features.
Nasal cavity, walls.
Nasal cavity, communicating.
Paranasal air sinuses.
Temporal fossa, features.
Pterygopalatine fossa.
External base of the skull.
Anterior cranial fossa.
Posterior cranial fossa.
The superior nasal meatus, features.
The middle nasal meatures, features.
The nasal septum, formation.
The canals of the temporal bone.
The carotid canal.
The carotico – tympanic canal.
The facial canal.
The chorda tympainy canal.
The tympanic canal.
The musculo – tubarius canal.
The mastoid canal.

Subject 2 «MYOLOGY»

The kinds of muscle tissue.
Structure of skeletal muscle.
The auxiliary apparatus of muscle.
The classification of muscles.
Muscles development.
The muscles of facial impression.
The muscles of mastication.
The muscles, which give mobility to the temporomandibular joint.
Muscles of the neck.
The muscles of the thorax.
The muscles of the abdominal wall.
The rectus sheath.
The inguinal canal.
The linea alba, umbilicus.
The diaphragm, features.
The muscles of the back.
The muscles of the shoulder girdle.
The muscles, which give mobility to the clavicle and scapula.
The axilla, features.
The muscles of the arm.
The muscles of the forearm.
The muscles of the hand.
The muscles, which give mobility to the shoulder joint.
The muscles, which give mobility to the elbow joint.
The muscles of the pelvic girdle.
The muscles of the thigh.
The femoral canal, features.
The muscles of the leg.
The muscles of the foot.
The muscles, which give mobility to the hip joint.
The muscles, which give mobility to the knee joint.
The arches of the foot.

Subject 3 «DIGESTIVE SYSTEM»

The features of the digestive tract.
The features of the teeth.
Development of the oral cavity.
Development of the teeth.
The deciduous teeth.
The permanent teeth.
The eruption of teeth.
The periodontal membrane, gums.
The features of the tongue.
Development of the tongue.
The salivary glands.
The features of the pharynx.
Development of the pharynx.
The part of esophagus, relation.
The constrictors of esophagus.
Development of the esophagus.
The features of the stomach.
The relation of the stomach.
Development of the duodenum.
The feature of the duodenum.
The mesenteric part of small intestine.
The anatomical different between ileum and jejunum.
The features of the large intestine.
Development of the small and large intestines.
The anatomical different between small and large intestine.
The features of the rectum.
The development of the liver.
The internal structure of the liver.
The relation of the liver.
The features of the gallbladder and common bile duct.

The development and features of the pancreas.
The features of the spleen.
The development of the peritoneum.
The features of the peritoneum.
The curse of the peritoneum.
The projection lines of the anterior abdominal wall.

Subject 4 «RESPIRATORY SYSTEM»

The mucous membrane of nasal cavity.
Superior wall of the nasal cavity.
Lateral wall of the nasal cavity.
Features of the nasal septum.
Interior wall of the nasal cavity.
Features of larynx, relation.
Point the sphincters of the larynx.
Point the dilatators of the larynx.
Point the muscles which tens the vocal ligament.
Features of the elastic conus of larynx.
Features of trachea, relation.
Development of the larynx.
Development of the trachea.
Development of the lungs.
Features the root and hilium of the lungs.
Segments of the lungs.
The bronchial tree.
The alveolar tree.
Features of the thyroid gland.
Features of the parathyroid gland.
Features of the thymus.
Features the mediastinum.
Contein of the superior mediastinum.
Contain of the anterior mediastinum.
Contain of the posterior mediastinum.

Subject 5 «UROGENITAL SYSTEM»

The structure of nephron.
The covering of the kidney.
The topography of the kidney
Internal structure of the kidney: cortex and medulla.
Development of the urogenital organs.
The features of ureter.
The features of urinary bladder.
The structure of the testis.
The layers of the scrotum.
The features of the spermatic cord.
The structure of the prostate and seminal vesicle.
The topography of the male urethra.
The structure of the ovary.
The features of the uterus.
The menstrual cycle.
The hormone control of male reproduction.
Development of genital organs.
Development of the external genital organs.
The descending of the testis.
The features of the perineum.
The curse of peritoneum in the pelvis.
The functions of the testis, seminal vesicle, prostate, and bulb urethral glands.
The structure of the suprarenal gland.

Subject 6 «CNS»

The reflex arc.
The classification of the nervous system.
Development of the spinal cord.
The topography the nuclei of the spinal cord.
The conductive tracts of the spinal cord.

The external features of the spinal cord.
The meninges of the spinal cord.
Development of the brain.
The conductive tracts of the internal capsule.
The functional anatomy of the cerebral cortex (nuclei of analyser).
The layers the cerebral cortex.
The classification of the conductive tracts (association, commissural, projection).
The circulation of the cerebrospinal fluid.
The limbic system.
The external features of cerebellum.
The nuclei of the cerebellum.
The cerebellar peduncles, tracts.
The rhomboid fossa, nuclei of cranial nerves.
The medial lemniscus, features.
The reticular formation.
The meninges of the brain.
The hypophisis cerebri, features.
The penial body, features.
The anterior and posterior spinocerebellar tract.
The spinothalamic tract (anterior and lateral).
The pyramidal tracts.
The tectospinal tract.
The rubrospinal tract.
The bulbothalamic tract.
The the medulla oblongata.
The the pons.
The midbrain.
The diencephalon, features.
The cerebral hemisphere, features.
The basal nuclei, features.

Subject 7 «SENSORY ORGANS»

The classification of the sense (special and general).
The sensory receptors.
The organ of hearing and equilibrium, features.
External ear features.
Middle ear features.
Internal ear bony and membranous labyrinth.
The cochlear tract.
The vestibular tract.
Development of the internal ear.
The visual apparatus, features.
The fibrous coat of the eyeball.
The vascular coat of the eyeball.
The nervous coat of the eyeball.
The refractive media of the eyeball aqueous humor, vitreous body, lens.
The optic tract.
Development of the eye.
The muscles of the eyeball.
The lacrimal apparatus.
The organ of taste, conductive tract.
The organ of smell, conductive tract.
The features of the skin.

Subject 8 «HEART, VESSELS AND NERVES OF HEAD AND NECK»

The spinal nerves, features.
The cervical plexus, branches.
III, IV, V pairs of the cranial nerves.
V cranial nerves, nuclei branches.
Vegetative ganglions of the trigeminal nerves.
The vagus nerve, parts, branches.
The glossopharyngeal nerve, nuclei, branches.
XI, XII pairs of the cranial nerves.
The development of the heart.
The chambers of the heart.
The wall of the heart, features.

The conducting system of the heart.
The blood supply of the heart.
The pericardium, features.
The development of the arteries.
Arch of aorta, branches, topography.
External carotid artery, branches.
Internal carotid artery, branches.
Subclavian artery, branches.
Superior vena cava, formation, tributares.
The venous sinuses of the dura matter, the emissary and diploic veins.
Internal jugular vein, tributaries.
External jugular vein, tributaries.
Anterior jugular vein.
Subclavian vein, tributaries.
Lymph of head and neck.

Subject 9 «VESSELS AND NERVES OF CAVITIES»

The various pattens in the branches of the intraorganic arteries.
Collateral blood circulation.
Development of the veins.
Blood sypply of the featus.
The systemic circulation.
The pulmonary circulation.
The thoracic aorta, branches.
The superior vena cava: azygos and hemiazygos veins, brachiocephalic veins.
The abdominal aorta, branches.
The inferior vena cava, tributaries.
The portal vein, tributaries.
Internal iliac artery, branches.
Internal iliac vein, venous plexuses of the pelvis.
The immune system, features.
The lymphatic system, features.
The structure of the lymph node.
The lymph nodes, vessels and ducts of the thoracic cavity.
The lymph nodes, vessels and ducts of the abdominal cavity.
The lymph nodes, vessels of the pelvis cavity.
The sympathetic part of the vegetative nerve system.
The parasympathetic part of the vegetative nerve system.
Sympathetic trunk, parts, branches.
Cavacaval and portocaval anastomosis.
Lumbar plexus, formation, branches.
Sacral plexus, formation, short branches.
Intercostal nerves, branches.

Subject 10 «VESSELS AND NERVES OF LIMBS»

The axillary artery, branches.
The axilla, walls and foramens, their contains.
The brachial artery, branches.
The ulnar artery, branches.
The radial artery, branches.
The anastomosis of the cubital fossa.
The anastomosis of the hand.
The anatomical snuffbox, formation, contains.
The superficial veins of upper limb.
The deep veins of the upper limb.
The lymph nodes and vessels of the upper limb.
The short branches of the brachial plexus.
The long branches of the brachial plexus.
The femoral artery, branches.
The adductor canal, walls and contain.
The popliteal artery, branches.
The anterior tibial artery, branches.
The posterior tibial artery, branches.
The cruropopliteal canal, walls and contain.
Arteries of the foot.
The superfecial veins of the lower limb.

The deep veins of the lower limb.
The lymph nodes and vessels of the lower limb.
The long branches of the sacral plexus.
The lumbar plexus: femoral and obturator nerves, lateral cutaneus nerve of the thigh.

SKILLS AND EXPERTISE

1. Call and show the parts of the skeleton and vertebral column;
2. Find in a kit of ribs their separate types, to determine parts and fitting to the right or left half of thorax;
3. Find and show on specimens the basic elements of bone joints between vertebra, joints between I cervical vertebra and occipital bone, joints between ribs, vertebras, and sternum;
4. Dissect the bonds of bones;
5. Show the parts of the skull;
6. Orient oneself in position of the whole skull;
8. Find on x-ray films the details of bone structure;
9. Show muscles of the shoulder girdle;
10. Show muscles of pelvis and lower limb;
11. Call and show on specimens the muscle of thorax;
12. Call and show on specimens the muscle of abdomen
13. Show on specimens topographical formations of the shoulder girdle and arm;
14. Call and show on specimens topographical formations of the leg and foot;
15. Call and show on specimens the muscle of the head;
16. Call and show on specimens the group and separate muscles of the neck;
17. Call and show on specimens the muscle and topographical formations of the head and neck;
18. Find on specimens part of the small and large intestine, pancreas and liver;
19. Correctly call and show their formations and topographical relations with other organs;
20. Show details and structure of studied organs on specimens;
21. Call and show on specimens the organs of the digestive system and the details of their structure;
22. Call and show on specimens and on corpse the nasal cavity, larynx, trachea, bronchi, lungs and details of their structure;
23. Call and show on specimens the endocrine glands and details of their structure;
24. Dissect the endocrine glands;
25. Show on corpse and separate specimens the organs and glands of urinary system;
26. Call and show on specimens the organs of reproductive system and details of their structure;
27. Call and show on specimens the details structure of the mammary gland
28. Call and show on specimens and on corpse the separate organs of digestive, respiratory and genitourinary systems, endocrine glands;
29. On the wet specimens of the heart find and show the chambers, surface and sulcus;
30. Show the heart boundaries on skeleton and corpse;
31. Show the course of the aorta and its branches;
32. Call and show the branches of abdominal aorta, their course and blood supply areas;
33. Call and show on the corpse the superior and inferior vena cava and their tributares;
34. Call and show the separate components of lymphatic system;
35. Call and show the arteries, veins, lymphatic vessels and nodes of the upper and lower lims;
36. Call and show on specimens the spinal cord and details of its structure;
37. Call and show on corpse the branches and ganglions of vegetative nervous system;
38. Call and show on corpse the long and short branches of the sacral and coccygeal plexuses;
39. Call and show on brain specimens the features of the inferior and sagittal surfaces;
40. Call and show on brain specimens the basal ganglions, lateral ventricles and their structures;
41. Call and show the conductive tracts of the spinal cord and brain;
42. Call and show the structures of the sensory organs;
43. Show the lymph nodes of the head and neck;
44. Show the lymph nodes of the thoracic cavity;
45. Call and show on corpse the I, II, III, IV and VI pairs of the cranial nerves;
46. Call and show on specimens the details of structure of the eyeball and the auxiliary apparatus of eye;
47. Call and show on specimens the detail of structure of the external, middle and internal ear;
48. Call and show on corpse the branches and ganglions of vegetative nervous system;
49. Call and show on specimens the structure of vision organs, sense of smell, taste, hearing and equilibrium;
50. Show the axillary and brachial arteries: topography, branches and blood supply areas.

5.2. Course Papers Themes

Course Papers Themes is not requires

5.3. Assessment Fund

The colloquium. The list of questions from item 5.1 according to the subject.

Subject 1 «OSTEOSYNDESMOLOGY»

The human anatomy.
Direction in the body. Planes and axis.
The function of the skeleton.
The chemical composition of the bone.
Bone classification.
Bone as an organ. Periosteum.
The age features of bone.
The development of the bones. The types of the ossification.
The points of ossification.
The atypical cervical vertebraes (I, II, VI, VII).
The atypical thoracic vertebraes (I, X, XI, XII).
The synarthroses.
The diarthroses (synovial joint).
The hemiarthroses.
Joint classification according to the number of articular surfaces.
Joint classification according to shape and function.
The development of joints.
Intervertebral joints.
Atlanto-occipital joints. Atlanto-axial joints.
Costo vertebral and costotransverse joints
Sternocostal joints.
Thorax as a hole.
Vertebral column as a hole, the curvatures.
Sternoclavicular joint.
Acromioclavicular joint.
Shoulder joint.
Elbow joint.
Wrist joint.
Joints of the hand and fingers
Symphysis pubis.
Sacroiliac joint.
The pelvis (as a hole).
Hip joint.
Knee joint.
Joint of the leg bones.
Ankle joint.
Joints the bones of the foot.
Foot as a hole.

«SCULL»

Development of cerebral skull.
Development of visceral skull.
Age features of the skull.
The periods in the growth of the skull.
Criticism of the racist the “theory”.
The first visceral arch, features.
The second visceral arch, features.
The third visceral arch, features.
The sutures of the skull.
The skull of the newborn.
The synchondroses of the skull.
The temporomandibular joint.
Orbit, features.
Nasal cavity, walls.

Nasal cavity, communicating.
Paranasal air sinuses.
Temporal fossa, features.
Pterygopalatine fossa.
External base of the skull.
Anterior cranial fossa.
Posterior cranial fossa.
The superior nasal meatus, features.
The middle nasal meatures, features.
The nasal septum, formation.
The canals of the temporal bone.
The carotid canal.
The carotico – tympanic canal.
The facial canal.
The chorda tympainy canal.
The tympanic canal.
The musculo – tubarius canal.
The mastoid canal.

Subject 2 «MYOLOGY»

The kinds of muscle tissue.
Structure of skeletal muscle.
The auxiliary apparatus of muscle.
The classification of muscles.
Muscles development.
The muscles of facial impression.
The muscles of mastication.
The muscles, which give mobility to the temporomandibular joint.
Muscles of the neck.
The muscles of the thorax.
The muscles of the abdominal wall.
The rectus sheath.
The inguinal canal.
The linea alba, umbilicus.
The diaphragm, features.
The muscles of the back.
The muscles of the shoulder girdle.
The muscles, which give mobility to the clavicle and scapula.
The axilla, features.
The muscles of the arm.
The muscles of the forearm.
The muscles of the hand.
The muscles, which give mobility to the shoulder joint.
The muscles, which give mobility to the elbow joint.
The muscles of the pelvic girdle.
The muscles of the thigh.
The femoral canal, features.
The muscles of the leg.
The muscles of the foot.
The muscles, which give mobility to the hip joint.
The muscles, which give mobility to the knee joint.
The arches of the foot.

Subject3
«DIGESTIVESYSTEM»
The features of the digestive tract.
The features of the teeth.
Development of the oral cavity.
Development of the teeth.
The deciduous teeth.
The permanent teeth.
The eruption of teeth.
The periodontal membrane, gums.
The features of the tongue.
Development of the tongue.
The salivary glands.
The features of the pharynx.

Development of the pharynx.
The part of esophagus, relation.
The constrictors of esophagus.
Development of the esophagus.
The features of the stomach.
The relation of the stomach.
Development of the duodenum.
The feature of the duodenum.
The mesenteric part of small intestine.
The anatomical different between ileum and jejunum.
The features of the large intestine.
Development of the small and large intestines.
The anatomical different between small and large intestine.
The features of the rectum.
The development of the liver.
The internal structure of the liver.
The relation of the liver.
The features of the gallbladder and common bile duct.
The development and features of the pancreas.
The features of the spleen.
The development of the peritoneum.
The features of the peritoneum.
The curse of the peritoneum.
The projection lines of the anterior abdominal wall.

Subject 4 «RESPIRATORY SYSTEM»

The mucous membrane of nasal cavity.
Superior wall of the nasal cavity.
Lateral wall of the nasal cavity.
Features of the nasal septum.
Interior wall of the nasal cavity.
Features of larynx, relation.
Point the sphincters of the larynx.
Point the dilatators of the larynx.
Point the muscles which tens the vocal ligament.
Features of the elastic conus of larynx.
Features of trachea, relation.
Development of the larynx.
Development of the trachea.
Development of the lungs.
Features the root and hilium of the lungs.
Segments of the lungs.
The bronchial tree.
The alveolar tree.
Features of the thyroid gland.
Features of the parathyroid gland.
Features of the thymus.
Features the mediastinum.
Contein of the superior mediastinum.
Contain of the anterior mediastinum.
Contain of the posterior mediastinum.

Subject 5 «UROGENITAL SYSTEM»

The structure of nephron.
The covering of the kidney.
The topography of the kidney
Internal structure of the kidney: cortex and medulla.
Development of the urogenital organs.
The features of ureter.
The features of urinary bladder.
The structure of the testis.
The layers of the scrotum.
The features of the spermatic cord.
The structure of the prostate and seminal vesicle.
The topography of the male urethra.
The structure of the ovary.

The features of the uterus.
The menstrual cycle.
The hormone control of male reproduction.
Development of genital organs.
Development of the external genital organs.
The descending of the testis.
The features of the perineum.
The curse of peritoneum in the pelvis.
The functions of the testis, seminal vesicle, prostate, and bulb urethral glands.
The structure of the suprarenal gland.

Subject 6
«CNS»
The reflex arc.
The classification of the nervous system.
Development of the spinal cord.
The topography the nuclei of the spinal cord.
The conductive tracts of the spinal cord.
The external features of the spinal cord.
The meninges of the spinal cord.
Development of the brain.
The conductive tracts of the internal capsule.
The functional anatomy of the cerebral cortex (nuclei of analyser).
The layers the cerebral cortex.
The classification of the conductive tracts (association, commissural, projection).
The circulation of the cerebrospinal fluid.
The limbic system.
The external features of cerebellum.
The nuclei of the cerebellum.
The cerebellar peduncles, tracts.
The rhomboid fossa, nuclei of cranial nerves.
The medial lemniscus, features.
The reticular formation.
The meninges of the brain.
The hypophisis cerebri, features.
The penial body, features.
The anterior and posterior spinocerebellar tract.
The spinothalamic tract (anterior and lateral).
The pyramidal tracts.
The tectospinal tract.
The rubrospinal tract.
The bulbothalamic tract.
The the medulla oblongata.
The the pons.
The midbrain.
The diencephalon, features.
The cerebral hemisphere, features.
The basal nuclei, features.

Subject 7
«SENSORY ORGANS»
The classification of the sense (special and general).
The sensory receptors.
The organ of hearing and equilibrium, features.
External ear features.
Middle ear features.
Internal ear bony and membranous labyrinth.
The cochlear tract.
The vestibular tract.
Development of the internal ear.
The visual apparatus, features.
The fibrous coat of the eyeball.
The vascular coat of the eyeball.
The nervous coat of the eyeball.
The refractive media of the eyeball aqueous humor, vitreous body, lens.
The optic tract.
Development of the eye.
The muscles of the eyeball.

The lacrimal apparatus.
The organ of taste, conductive tract.
The organ of smell, conductive tract.
The features of the skin.

Subject 8 «HEART, VESSELS AND NERVES OF HEAD AND NECK»

The spinal nerves, features.
The cervical plexus, branches.
III, IV, V pairs of the cranial nerves.
V cranial nerves, nuclei branches.
Vegetative ganglions of the trigeminal nerves.
The vagus nerve, parts, branches.
The glossopharyngeal nerve, nuclei, branches.
XI, XII pairs of the cranial nerves.
The development of the heart.
The chambers of the heart.
The wall of the heart, features.
The conducting system of the heart.
The blood supply of the heart.
The pericardium, features.
The development of the arteries.
Arch of aorta, branches, topography.
External carotid artery, branches.
Internal carotid artery, branches.
Subclavian artery, branches.
Superior vena cava, formation, tributares.
The venous sinuses of the dura matter, the emissary and diploic veins.
Internal jugular vein, tributaries.
External jugular vein, tributaries.
Anterior jugular vein.
Subclavian vein, tributaries.
Lymph of head and neck.

Subject 9 «VESSELS AND NERVES OF CAVITIES»

The various pattens in the branches of the intraorganic arteries.
Collateral blood circulation.
Development of the veins.
Blood sypply of the featus.
The systemic circulation.
The pulmonary circulation.
The thoracic aorta, branches.
The superior vena cava: azygos and hemiazygos veins, brachiocephalic veins.
The abdominal aorta, branches.
The inferior vena cava, tributaries.
The portal vein, tributaries.
Internal iliac artery, branches.
Internal iliac vein, venous plexuses of the pelvis.
The immune system, features.
The lymphatic system, features.
The structure of the lymph node.
The lymph nodes, vessels and ducts of the thoracic cavity.
The lymph nodes, vessels and ducts of the abdominal cavity.
The lymph nodes, vessels of the pelvis cavity.
The sympathetic part of the vegetative nerve system.
The parasympathetic part of the vegetative nerve system.
Sympathetic trunk, parts, branches.
Cavacaval and portocaval anastomosis.
Lumbar plexus, formation, branches.
Sacral plexus, formation, short branches.
Intercostal nerves, branches.

Subject 10 «VESSELS AND NERVES OF LIMBS»

The axillary artery, branches.
The axilla, walls and foramens, their contains.
The brachial artery, branches.

The ulnar artery, branches. The radial artery, branches.
The anastomosis of the cubital fossa. The anastomosis of the hand.
The anatomical snuffbox, formation, contains. The superficial veins of upper limb.
The deep veins of the upper limb.
The lymph nodes and vessels of the upper limb. The short branches of the brachial plexus.
The long branches of the brachial plexus. The femoral artery, branches.
The adductor canal, walls and contain. The popliteal artery, branches.
The anterior tibial artery, branches. The posterior tibial artery, branches.
The cruropopliteal canal, walls and contain. Arteries of the foot.
The superfecial veins of the lower limb. The deep veins of the lower limb.
The lymph nodes and vessels of the lower limb. The long branches of the sacral plexus.
The lumbar plexus: femoral and obturator nerves, lateral cutaneus nerve of the thigh.

SKILLS AND EXPERTISE

1. Call and show the parts of the skeleton and vertebral column;
2. Find in a kit of ribs their separate types, to determine parts and fitting to the right or left half of thorax;
3. Find and show on specimens the basic elements of bone joints between vertebra, joints between I cervical vertebra and occipital bone, joints between ribs, vertebras, and sternum;
4. Dissect the bonds of bones;
5. Show the parts of the skull;
6. Orient oneself in position of the whole skull;
8. Find on x-ray films the details of bone structure;
9. Show muscles of the shoulder girdle;
10. Show muscles of pelvis and lower limb;
11. Call and show on specimens the muscle of thorax;
12. Call and show on specimens the muscle of abdomen
13. Show on specimens topographical formations of the shoulder girdle and arm;
14. Call and show on specimens topographical formations of the leg and foot;
15. Call and show on specimens the muscle of the head;
16. Call and show on specimens the group and separate muscles of the neck;
17. Call and show on specimens the muscle and topographical formations of the head and neck;
18. Find on specimens part of the small and large intestine, pancreas and liver;
19. Correctly call and show their formations and topographical relations with other organs;
20. Show details and structure of studied organs on specimens;
21. Call and show on specimens the organs of the digestive system and the details of their structure;
22. Call and show on specimens and on corpse the nasal cavity, larynx, trachea, bronchi, lungs and details of their structure;
23. Call and show on specimens the endocrine glands and details of their structure;
24. Dissect the endocrine glands;
25. Show on corpse and separate specimens the organs and glands of urinary system;
26. Call and show on specimens the organs of reproductive system and details of their structure;
27. Call and show on specimens the details structure of the mammary gland
28. Call and show on specimens and on corpse the separate organs of digestive, respiratory and genitourinary systems, endocrine glands;
29. On the wet specimens of the heart find and show the chambers, surface and sulcus;
30. Show the heart boundaries on skeleton and corpse;
31. Show the course of the aorta and its branches;
32. Call and show the branches of abdominal aorta, their course and blood supply areas;
33. Call and show on the corpse the superior and inferior vena cava and their tributares;
34. Call and show the separate components of lymphatic system;
35. Call and show the arteries, veins, lymphatic vessels and nodes of the upper and lower lims;
36. Call and show on specimens the spinal cord and details of its structure;
37. Call and show on corpse the branches and ganglions of vegetative nervous system;
38. Call and show on corpse the long and short branches of the sacral and coccygeal plexuses;
39. Call and show on brain specimens the features of the inferior and sagittal surfaces;
40. Call and show on brain specimens the basal ganglions, lateral ventricles and their structures;
41. Call and show the conductive tracts of the spinal cord and brain;
42. Call and show the structures of the sensory organs;

43. Show the lymph nodes of the head and neck;
44. Show the lymph nodes of the thoracic cavity;
45. Call and show on corpse the I, II, III, IV and VI pairs of the cranial nerves;
46. Call and show on specimens the details of structure of the eyeball and the auxiliary apparatus of eye;
47. Call and show on specimens the detail of structure of the external, middle and internal ear;
48. Call and show on corpse the branches and ganglions of vegetative nervous system;
49. Call and show on specimens the structure of vision organs, sense of smell, taste, hearing and equilibrium;
50. Show the axillary and brachial arteries: topography, branches and blood supply areas.

The list of tasks in Annex 1
The list of tests in Annex 2
Questions for subjects in Annex 3

5.4. List of Assessment Tools

1. The colloquium.
2. The tests in Annex 2.
The practical tasks in Annex 1.
The discipline flow chart and modular control in Annex 4,5.

6. COURSE (MODULE) METHODOLOGICAL AND INFORMATIONAL SUPPORT

6.1. Recommended Reading

6.1.1. Required Reading List

	Authors, Compliers	Title	Book publisher, Year
L1.1	M.Sapin.	Textbook of human anatomy. In two volumes	New Wave Publishing Agency, Moscow, 2010.
L1.2	B.Chaurasia's	Human Anatomy. Volume one, v. two, v. three.	CBS Publishers & Distributors, 2004
L1.3	M.Prives	Human Anatomy. Volume I, II. English translation.	Mir Publishers, Moscow, 1985.
L1.4	Richard S. Snell	Clinical anatomy for medical students. 5th edition	Lippincott. Williams & Wilkins, 2000.
L1.5	Carmine D. Clemente	Anatomy, regional atlas of the human body. 5th edition	Lippincott. Williams & Wilkins, 2006

6.1.2. Advanced Reading

	Authors, Compliers	Title	Book publisher, Year
L2.1	Memmler	The Human Body in Health & Disease	Cochen Wood, 1996
L2.2	Raja Shahzad Gull	Facts & Figures Anatomy / Based on. R.J. Last- Snell- B.D. Chaurasia	First edition, 2000-2001
L2.3	Shoukat N.Kazi	Exam - Oriented Anatomy V.l, V.2.	New Delhi, 2005

6.1.3. Guidance Papers

	Authors, Compliers	Title	Book publisher, Year
L3.1	Y. Gaivoronskaya	The systemic anatomy of the bones and joints	Private printing-house, 2017
L3.2	Y. Gaivoronskaya	The systemic anatomy of the skull	Private printing-house, 2017

	Authors, Compliers	Title	Book publisher, Year
L3.3	Y. Gaivoronskaya	The systemic anatomy of the muscles	Private printing-house, 2017
L3.4	Y. Gaivoronskaya	The systemic anatomy of the digestive system	Private printing-house, 2017
L3.5	Y. Gaivoronskaya	The systemic anatomy of the respiratory and endocrine organs	Private printing-house, 2017
L3.6	Y. Gaivoronskaya	The systemic anatomy of the urinary and reproductive systems	Private printing-house, 2017
L3.7	Y. Gaivoronskaya	The systemic anatomy of the central nervous system	Private printing-house, 2017
L3.8	Y. Gaivoronskaya	The systemic anatomy of the sensory organs	Private printing-house, 2017
L3.9	Y. Gaivoronskaya	The systemic anatomy of the peripheral nervous system	Private printing-house, 2017
L3.10	Y. Gaivoronskaya	The systemic anatomy of the cardiovascular, lymphatic and immune systems	Private printing-house, 2017

6.3. List of Information and Education Technologies

6.3.1. Competence-based Educational Technologies

6.3.1.1	Traditional educational technology: lectures; practical training; individual work.
6.3.1.2	Innovative educational technology: the first place among the new technologies is occupied by network information technologies, which allow students to have independent access to the Internet resources, which contributes to increasing the level of knowledge in the discipline under study.
6.3.1.3	The informational educational operations: interactive anatomic desktop of "Pirogov"; the Internet resources; the software for multimedia:Windows Media Center, Microsoft Word, Microsoft office Power Point, Microsoft office Excel.

6.3.2. List of Information Reference Systems and Software

6.3.2.1	Electronic library of the KRSU http://lib.krsu.edu.kg/
6.3.2.2	Database of uchebno-methodical materials of library KRSU http://lib.krsu.edu.kg/
6.3.2.3	http://web-local.rudn.ru/web-local/kaf/rj/index.php?id=3 http://anatomy-portal.info/
6.3.2.4	http://difmed.ru/razdely-meditsiny/anatomiya http://www.webmedinfo.ru/library/anatomiya-library/ http://anatomia.ucoz.com/
6.3.2.5	http://www.e-anatomy.ru/ (the virtual atlas) http://www.anatomy.tj/ (the virtual atlas) http://anatomia.spb.ru/3danatomy.html (3D the atlas)
6.3.2.6	http://krasgmu.net/publ/uchebnye_materialy/obuchajushhie_materialy/anatomija_cheloveka_3 d_onlajn/11-1-0-902 (3D the atlas)
6.3.2.7	- MedExplorer, MedHunt, PubMed. (Scientific articles)

7. COURSE (MODULE) LOGISTICS

7.1	Lecture hall with multimedia for 100 seats
7.2	Study room with video projector
7.3	Museum of human anatomy with interactive anatomic desktop of "Pirogov"
7.4	Study room - 11
7.5	Labs- 3
7.7	Total area of rooms - 155 m ²

7.11	Equipment: interactive anatomic desktop of "Pirogov"; computer; laptop; the printer; projector;
7.12	The training stands «Surgical instruments»; «Circles of the cardiovascular system»; «Digestive system», «Respiratory system», «Urinary system», «CNS»;
7.15	The anatomical models: skeleton; joints; skull; muscles; digestive system; respiratory system; genitourinary system; CNS; heart; head and neck.
7.19	The posters: skeleton; cardio-vascular system; respiratory system; digestive system; urine system; muscles; skull; lymphatic system; vegetative nerve system; reproductive system.
7.20	The natural anatomical preparations: corpse; internal organs; joints; brain.

8. COURSE (MODULE) PROFICIENCY METHODICAL GLUIDELINES (FOR STUDENT)

The discipline flow chart sees in Annex 4.

1. It is necessary to plan and organize the learning of discipline. It is recommended to organize the time as follows:
- Learning of lecture summary in the same day after lecture – 10-15 minutes.
- Learning of lecture summary the day before the next lecture – 10-15 minutes.
- Learning of theoretical material on textbook and lecture summary – 1 hour in a week.
- Preparation for the practical class – 2 hours.

Total per week – 3 hours 30 minutes.

2. For preparation to the midterm examination and midpoin assessment in addition to the lecture summary students have to use the textbook.

3. The educational technologies. Innovative educational technology: the first place among the new technologies is occupied by network information technologies, which allow students to have independent access to the Internet resources, which contributes to increasing the level of knowledge in the discipline under study. For carry out the practical session following educational technologies are used:
- Active and interactive forms of practical session.
- Methods of discussion in group - «Endocrine and immune systems».
- To study the parts of splanchnology.
- Discussing in small groups about the theme «The innervation of the trunk and extremities».
- To use computer programs about subject "CNS".
- Reports about the «Morphology of the sensory organs».
- Situation tasks about «Head and neck anatomy».

4.The organization and control of independing work is performed as follow:
- The independing learning the anatomical models;
- Use computer programs on interactive anatomic desktop of "Pirogov";
- Preparations of multimedia presentations;
- Preparations of messages and reports;
- Working with lecture summary and textbook;
- Preparations the schemes and pictures;
- Performance the written and oral tasks;
- Preparations the tables and posters

The forms of controlling of the independing work:
- Discussing about the results of the performed work in practical session;
- Carry out the written colloquium;
- Carry out the oral colloquium;
- Carry out the tests about each subject.

5. The formative assessment of knowledge is performed by the teacher during each practical session. The criteria for positive mark the test control, which performance the students not less than 60 % of task.
The midterm examination of knowledge and practical abilities made up in to two stages. The checking of theoretical knowledge is made in the form of test and evaluated up on 5-mark scale, criteria for positive mark are performance the students not less than 60 % of task. The checking of practical abilities also evaluated up on 5mark scale.
Summary control of knowledge and practical abilities is performed in form of the examination which consisting of two stages. The first stage - test control. The second stage - checking of practical skills «Find and show», criteria of positive mark - more than 60 % of the right answers from examination task.

ANNEX 1

The tasks for formative assessment
Subject "Osteosyndesmolody"

Task 1

1. The human anatomy. Direction in the body. Planes and axis.
2. Ankle joint.

Point the localization:

1. Median sacral crest.
2. Interspinous ligament.
3. Capitulum of humerus.
4. Ulnar collateral ligament.
5. Greater trochanter.
6. Medial malleolus.
7. Interosseus boder of tibia.
8. Tarsal bones.
9. Interphalangeal joints.
10. Glenoid labrum.

Task 2

1. The synarthroses.
2. Joints of the hand and fingers

Point the localization:

1. Anterior tubercle of atlas.
2. Intermediate sacral crest.
3. Supraspinous ligament.
4. Coronoid fossa of humerus.
5. Radial collateral ligament.
6. Intertrochanteric line.
7. Auricular surface of ilium.
8. Promontory.
9. Interosseous ligament.
10. Medial epicondyle of humerus.

Subject "Skull"

Task 1

1. Development of cerebral skull.
2. Internal surface of the base of the skull.

Point the localization

1. Foramen magnum.

2. Foramen spinosum.
3. Squamous part of occipital bone.
4. Groove for inferior petrosal sinus.
5. Temporal surface of frontal bone.
6. Perpendicular plane of ethmoid bone.
7. Infratemporal surface of maxilla.
8. Palatine bone.
9. Oblique line.
10. Zygomaticofacial formen.

Task 2

1. Orbit.
2. The chorda tympani canal.

Point the localization:

1. Basilar part of occipital bone.
2. Formen rotundum.
3. Tympanic part of temporal bone.
4. Mastoid notch.
5. Opening of frontal sinus.
6. Cribriforme plate.
7. Maxillary tuber.
8. Perpendicular plate of palatine bone.
9. Mandibular foramen.
10. Zygomaticotemporal foramen.

Subject “Myology”

Task 1

Theory questions:

1. Axillary fossa, features.
2. Muscles of the pelvic girdle.

Point the localization:

1. Trapezius muscle.
2. Thoracolumbar fascia.
3. Platysma muscle.
4. Corrugator supercilii muscle.
5. Deltoid muscle.
6. Abductor pollicis longus muscle.
7. Obturator internus muscle.
8. Adductor longus muscle.
9. Abductor hallicis muscle.
10. Lumbrical muscles.

Task 2
Theory questions:

1. The muscles, which give mobitlity to the knee joint.
2. Muscles of the arm.

Point the localization:

1. Longissimus muscle.
2. Serratus anterior muscle.
3. Transversus abdominis muscle.
4. Stylohyoid muscle.
5. Depressor labii inferior muscle.
6. Triceps brachi muscle.
7. Abductor pollicis brevis muscle.
8. Semitendinosus muscle.
9. Peroneus longus muscle.
10. Superficial inguinal ring.

Subject "Respiratory system"

Task 1
The theory questions:

1. The features of the trachea and main bronches
2. The thyroid gland, features

Point the localization:

1. Nasal cavity
2. Nasal septum
3. Arytenoids cartilage
4. Subglottic space
5. Bifurcation of trachea
6. Oblique fissure
7. Infundibulum
8. Inferior nasal meatus
9. Anterior mediastinum
10. Apical segment

Task 2
The theory questions:

1. The larynx: cartilages, ligament, joint
2. The parathyroid glands, features

Point the localization:

1. Lateral cartilage
2. Superior nasal concha
3. Posterior cricoarytenoid muscle
4. Vocal ligament
5. Apex of lung
6. Horizontal fissure
7. Vestibule of larynx
8. Cricothyroid muscle

9. Cartilages of trachea
10. Root of lungs

Subject "Urogenital system"

Task 1

Theory questions:

1. The topography of the kidney
2. The structure of the ovary

Point the localization:

1. The fibrous capsule of kidney
2. Layers of the ureter
3. Female urethra
4. Epididimus
5. Root of penis
6. Surfaces of testis
7. Bulbo urethral glands
8. Fundus of uterus
9. Supravaginal part of cervix
10. Spermatic cord

Task 2

Theory questions:

1. The ureter, features, relation
2. The features of perineum

Point the localization:

1. Lateral border of kidney
2. Major calyx
3. Male urethra, parts
4. Ends of ovary
5. Vaginal layer of scrotum, parts
6. Lobes of prostate
7. Ampulla of uterine tube
8. Clitoris
9. Mesoovariym
10. Head of penis

Subject "Central nerve system"

Task 1

Theory questions:

1. Hypothalamus
2. Spinocereberallar tract

Practical questions:

1. Cauda equina
2. Decussation of pyramids
3. Rhomboid fossa
4. Interpeduncular fossa
5. Precentral gyrus
6. Superior parietal lobule
7. Cuneus
8. Claustrum
9. Anterior commissure

10. Sphenoparietal sinus

Task 2

Theory question:

1. The medulla oblongata
2. Tectospinal tract

Practical questions:

1. Anterior funiculi
2. Olive
3. Striae medullares
4. Superior colliculus
5. Tuber cinereum
6. Inferior temporal gyrus
7. Insula
8. Hippocampus
9. Interventricular foramen
10. Superior sagittal sinus

Subject "The vessels and nerves of the head and neck"

Task 1

Theory questions:

1. Thyrocervical trunk, internal thoracic artery.
2. Lymph of head and neck.

Practical questions:

1. Superficial temporal artery
2. Superior intercostal artery
3. Cavernous sinus
4. Internal jugular vein
5. Transverse cervical nerve
6. Pulmonary trunk
7. Zygomatic nerve
8. Interventricular septum, parts
9. Jugular foramen
10. Optic canal

Task 2

Theory questions:

1. External carotid artery, anterior and posterior branches.
2. The wall of the heart.

Practical questions:

1. Inferior thyroid artery
2. Transverse cervical artery
3. Inferior petrosal sinus
4. Tricuspid valve
5. Greater auricular nerve
6. Oblique sinus
7. Frontal nerve
8. Inferior alveolar nerve
9. Superior orbital fissure

10. Foramen lacerum

Subject “The vessels and nerves of the cavities”

Task 1

Theory questions:
1. The thoracic duct, formation, topography.
2. Sacral plexus, short branches.

Point the localization:
1. Vertebral vein
2. Right gastric vein.
3. Portal vein.
4. Ilioinguinal nerve.
5. Inferior mesenteric artery.
6. Common iliac vein.
7. Obturator artery.
8. Deep circumflex iliac artery.
9. Impar ganglion.
10. Inferior hypogastric plexus

Task 2

Theory questions:
1. Thoracic aorta, branches.
2. Lumbar plexus: obturator nerve, femoral nerve

Point the localization:
1. Left common carotoid artery.
2. Thoracic duct.
3. Inferior epigastric artery.
4. Vagus nerve.
5. Common hepatic artery.
6. Iliohypogastric nerve.
7. Middle sacral artery.
8. External iliac vein.
9. Superior hypogastric plexus.
10. Inferior vesical artery.

Subject “The vessels and nerves of the limbs”

Task1

The theory questions:
1. The ulnary artery, branches.
2. The long branches of the sacral plexus.

Point the localization:
1. Lateral thoracic artery.
2. Common interosseus artery.
3. Basilic vein.
4. Median nerve.

5. Suprascapular nerve.
6. Profunda femoral artery.
7. Cruropopliteal canal.
8. Lateral plantar artery.
9. Obturator nerve.
10. Sural nerve.

Task 2

The theory questions:

1. The femoral artery, branches.
2. The median and ulnar nerves.

Point the localization:

1. Anterior circumflex humeral artery.
2. Deep palmar arch.
3. Long thoracic nerve.
4. Axillary nerve.
5. Descending genicular artery.
6. Superfecial branch of radia nerve.
7. Posterior tibial artery.
8. Deep plantar artery.
9. Lateral cutaneus nerve of the thigh.
10. Deep perineal nerve

ANNEX 2

The tests for midterm examination

1. Wharton's duct drains:
A. Submandibular gland B. Maxillary gland
C. Parotid gland D. All of the above
Ans. (A)
2. Which nerve passes through Menke's cave:
A . Abducens B. Facial
C. Trigeminal D. Trochlear
Ans. (C)
3. Tonsil is mainly supplied by:
A. Facial artery B. Lingual artery
C. Labial artery D. Sup. palatine artery
Ans. (A)
4. The great vein of Galen drains into the:
A. Straight sinus B. Inferior sagittal sinus
C. Int. jugular vein D. Ext. jugular vein
Ans. (A)
5. Hippocampus lies at:
A. Inferior part of cerebral hemisphere B. Posterior to cerebellum
C. Medial geniculate body D. In pons
Ans. (A)
6. Dentate nucleus is a part of:
A. Midbrain B. Pons
C. Medulla D. Cerebellum
Ans. (D)
7. Superior rectus muscle is supplied by cranial nerve:
A. III B. IV
C. VI D. VII
Ans. (A)
8. Muscle hyoglossus is supplied by nerve:
A. Lingual B XII cranial
C. Facial D. V Cranial
Ans. (B)
9. Seventh, ninth and tenth cranial nerves end in :
A. Nucleus ambiguus B. N. tractus solitarius
C. Dorsal nucleus of vagus D. Long tract of V nerve
Ans. (B)
10. Filum terminate internal is formed by:
A. Piameter B. Arachnoid
C. Duramater D. Spinal
Ans. (A)
11. Foramen transversarium transmit:
A. Inferior jugular vein B. Inferior petrosal sinus
C. Sigmoid sinus D. Vertebral artery

Ans. (D)

12. Which of the following cranial nerve does not contain parasympathetic fibres:

A. III B. VI
C. IX D. X

Ans. (B)

13. Crus cerebri is a part of:

A. Pons B. Medulla
C. Cerebrum D. Midbrain

Ans. (D)

14. All of the following laryngeal cartilages hyaline except:

A. Thyroid B. Cricoid
C. Arytenoid base D. Epiglottis

Ans. (D)

15. The vocal cords can be abducted (separated) by the:

A. Arytenoid (transverse arytenoid) muscle B. Lateral cricoarytenoid muscles
C. Posterior cricoarytenoid muscles D. Cricothyroid muscles

Ans. (C)

16. Foramen rotundum transmits:

A. Mandibular nerve B. Maxillary nerve
C. Maxillary artery D. Accessory meningeal artery

Ans. (B)

17. Posterior communicating artery is a branch of:

A. Posterior cerebral artery B. Anterior cerebral artery
C. Basilar artery D. Internal carotid artery

Ans. (D)

18. Nerve supply to platysma is:

A. Ansa cervicalis B. Facial
C. Hypoglossal D. Mandibula

Ans. (B)

19. Trachea bifurcates at vertebral level of:

A. C6 B. Lower border of T3
C. Upper border of T3 D. Upper border of T5

Ans. (D)

20. The spinal cord ends at the level of:

A. D12-L1 B. L1-L2
C. L2-L3 D. L3-L4

Ans. (B)

21. Middle meningeal artery is a branch of:

A. Cavernous branch of internal carotid B. Petrous branch of internal carotid
C. Basilar artery D. Maxillary artery

Ans. (D)

22. Ophthalmic artery is a branch of artery:

A. Common carotid B. Internal carotid
C. External carotid D. Basilar

Ans. (B)

23. Hypoglossal nerve supplies all of the following except:

A. Genioglossus B. Styloglossus
C. Hyoglossus D. Palatoglossus

Ans. (D)

24. Muscle not originating from orbit is:

A. Superior oblique B. Inferior oblique
C. Lateral rectus D. Medial rectus

Ans. (B)

25. Stapedius muscle is supplied by nerve:

A. III B. VI
C. VII D. VIII

Ans. (C)

26. In a newborn, spinal cord ends at:

A. LI B. L2
C. L3 D. L4

Ans. (C)

27. Trigeminal nerve has how many nuclei in CNS?

A. Three B. Four
C. Five D. Six

Ans. (B)

28. The spinal nerve pairs are:

A. 29 B. 30
C. 31 D. 32

Ans. (C)

29. Medial geniculate body is associated with:

A. Taste B. Hearing
C. Vision D. Smell

Ans. (B)

30. Anterior spinothalamic tract conveys impulses of:

A. Pain B. Light touch
C. Cold D. Heat

Ans. (B)

31. Which nerve does not arise from medulla:

A. VII B. IX
C. X D. XII

Ans. (A)

32. Largest cranial nerve is:

A. IVth B. Vth
C. Vlth D. IIIrd

Ans. (B)

33. Nasolacrimal duct drains into:

A. Maxillary sinus B. Middle meatus
C. Inferior meatus D. Posterior part of nasal cavity

Ans. (C)

34. Drainage of CSF from lateral to third ventricle through:

A. Foramen of Munroe B. Foramen of Lushka
C. Foramen of Magendi D. Aqueduct of Sylvius

Ans. (A)

35. All of the following have no lymphatics except:

A. Inner ear B. Eyeball
C. Brain D. Dermis

Ans. (A)

36. All of the following muscles are grouped together "muscles of mastication" except:

A. Buccinator B. Masseter
C. Temporalis D. Pterygoids

Ans. (A)

37. Each of the following has an attachment to scapula except:

A. Pectoralis major B. Pectoralis minor
C. Biceps brachii D. Triceps

Ans. (A)

38. Attachments to first rib are following except:

A. Scalene anterior B. Scalene medius
C. Scalene posterior D. Suprapleural membrane

Ans. (C)

39. Atrioventricular node is supplied by:

A. Right coronary artery B. Left coronary artery
C. Left anterior descending artery D. Left circumflex artery

Ans. (A)

40. Posterior interventricular artery is a branch of the — artery:

A. Circumflex B. Left coronary
C. Right coronary D. None of the above

Ans. (C)

41. The — vein connects the lateral thorcic vein cranially with the superfical epigastric vein caudally:

A. Internal thoracic B. Musculophrenic
C. Thoracoepigastric D. Anterior mediastinal

Ans. (C)

42. Anterior interventricular septum is supplied by – artery:

A. Right coronary B. Left coronary
C. Coronary sinus D. All of the above

Ans. (B)

43. The ligamentum arteriosum connects arch of aorta with

A. Pulmonary trunk B. Superior vena cava
C. Left branch of pulmonary artery D. Suhclavian artery

Ans. (C)

44. The thoracic duct open at the junction of:

A. Rt. internal jugular and right subclavian B. Two branchiocephlaic veins
C. Lett internal jugular and left subclavian D. None of the above

Ans. (C)

45. Great cardiac vein drains into:

A. Right atrium B. Left atrium
C. Coronary sinus D. Inferior vena cava

Ans. (C)

46. Lattisimus dorsi is supplied by nerve:

A. Thoracodorsal B. Axillary
C. Long thoracic D. Musculocutaneous

Ans. (A)

47. Thebesian vein drains into:

A. Coronary sinus B. Left atrium
C. Right atrium D. Right ventricle

Ans. (C)

48. The superior most opening in the diaphragm is :

A. Aortic B. Vena caval
C. Oesophagea D. Lateral arcuate foramen

Ans. (B)

49. Lingula is a part of the lung:

A. Left upper lobe B. Left lower lobe
C. Right upper lobe D. Right middle lobe

Ans. (A)

50. Coronary arteries arise from:

A. Heart B. Ascending Aorta

C. Arch of Aorta D. Pulmonary trunk

Ans. (B)

51. Interosseous recurrent artery is a branch of:

A. Radial B. Ulnar

C. Common interosseus D. Posterior interosseus

Ans. (D)

52. The triceps brachii muscle:

A. Flexes the arm B. Extends the arms

C. Abducts the arm D. None of the above

Ans. (B)

53. The nerve responsible for the fine movements of the hand is:

A. Radial B. Median

C. Posterior interosseous D. Ulnar N.

Ans. (D)

54. Musculocutaenous nerve supplies all of the folloiwing except:

A. Branchialis B. Biceps branchii

C. Coracobrachialis D. Triceps

Ans. (D)

55. The following structures are attached to the greater tuberosity of humerus except:

A. Supraspinatus B. Infraspinatus

C. Subscapularis D. Teres minor

Ans. (C)

56. Main action of quadrator femoris is:

A. Extension B. Flexion

C. Lateral rotation D. Medial rotation

Ans. (C)

57. Femoral nerve does not supply:

A. Sartorius B. Rectus femoris

C. Tensor fasciae latae D. Knee joint

Ans. (C)

58. The following are found in the adductor canal except:

A. Saphenous nerve B. Femoral artery

C. Femoral vein D. Saphenous vein

Ans. (D)

59. Sartorius muscle originates from:

A. Pectinate line B. Anterior superior iliac spine

C. Ischial tuberosity D. Pubis symphysis

Ans. (B)

60. Strongest extensor of knee is:

A. Sartorius B. Biceps femoris

C. Tensor fascia lata D. Quadriceps femoris

Ans. (D)

61. Which is the chief extenor of thigh at hip joint:

A. Gluteus maximus B. Gluteus medius

C. Gluteus minimus D. Tensor fascia lata

Ans. (A)

62. With knee flexed and foot off the ground, the muscle which brings about medial rotation of tibia is:

A. Gastroenemius B. Soleus

C. Vastus medialis D. Adductor magnus

Ans. (A)

63. Which of the following muscleorigin ftom ischial tuberosity:

A. Long head of biceps femoris B. Pyramidalis
C. Soleus D. Gluleus maximus

Ans. (A)

64. Inferior mesenteric vein drains into:

A. Portal vein B. Splenic vein
C. Inferior vena D. Hepatic vein

Ans. (B)

65. Internal pudendal artery in a female is a branch of:

A. Internal Iliac Artery B. Uterine Artery
C. External iliac artery D. Common iliac artery

Ans. (A)

66. Portal vein is formed by splenic vein and:

A. Superior mesenteric vein B. Rectal vein
C. Inferior mesenteric vein D. Hepatic vein

Ans. (A)

67. The narrowest part of male urethra is following except:

A. Prostatic part B. Membranous part
C. External urethral meatus D. Internal urethral orifice

Ans. (A)

68. Length of female urethra is:

A. 2 cm B. 4 cm
C. 6cm D. 8cm

Ans. (B)

69. Left ovarian vein drains into:

A. Inf. vena cava B. Left renal vein
C. Inf mesentric vein D. Splenic vein

Ans. (B)

70. Which of the following organs is supplied by the coeliac artery:

A. Appendix B. Spleen
C. Ascending colon D. Rectum

Ans. (B)

71. The pouch of Douglas is situated between:

A. Rectum and bladder B. Uterus and bladder
C. Rectum and uterus D. None of the above

Ans. (C)

72. Root value of lumbosacral trunk is:

A. L5.S1 B. L4,5
C. L4,5,S1 D. S1.S2

Ans. (B)

73. Right adrenal vein drains into:

A. Rt. renal vein B. IVC
C. Common iliac D. Azygous vein

Ans. (B)

74. Greater omentum is attached to:

A. S tomach and jejunum B. Stomach and liver
C. Colon and jujunum D. Stomach and colon

Ans. (D)

75. The shortest part of colon is:

A. Ascending B. Transverse
C. Descending D. Sigmoid

Ans. (A)

76. Cisterna chyli is situated in:

A. Pelvis B. Neck
C. Thorax D. Abdomen

Ans. (D)

77. Neural tube develops from:

A. Ectoderm B. Endoderm
C. Mesoderm D. All of the above

Ans. (A)

78. The first milky tooth to erupt is:

A. Upper central incisor B. Lower central incisor
C. Canine D. First molor

Ans. (B)

79. Hassals corpuscle are seen in :

A. Thymus B. Spleen
C. Lymph node D. Appendix

Ans. (A)

80. Peyer's patches enable histologically to identify the normal:

A. Oesophagus B. Ileum
C. Duodenum D. Caecum

Ans. (B)

81. Which of the following does not aid in increasing surface area in the small intestine?

A. Plica circulares B. Villi
C. Taeniae coli D. Microvilli

Ans. (C)

82. Cartilage of epiglottis is:

A. Fibrous B. Elastic
C. Hyaline D. Dense connective tissue

Ans. (B)

83. The ———— is enclosed by the vertebral arch of a typical thoracic vertebrae:

A. Pedicle B. Costal Pit
C. Vertebral foramen D. Vertebral notch

Ans. (C)

84. Which is a syndesmosis:

A. 1st carpometacarpal joint B. Wrist joint
C. Tarsometatarsal joint D. Inferior tibiofibular joint

Ans. (D)

85. Attachments of semimembranosus include:

A. Ischial tuberosity + Tibial shaft B. Ischial tuberosity + Medial tibial condyle
C. Lateral supracondylar ridge of femur + fibular head D. Ischial tuberosity + fibular head

Ans. (B)

86. Shoulder joint is which variety of joint:

A. Ball and socket B. Pivot
C. Hinge D. Saddle shaped

Ans. (A)

87. What vertebra has the most prominent spine:

A. C3 B. C7
C. T8 D. LI

Ans. (B)

88. The area of greatest growth activity in the bone is:

A. Epiphyseal cartilage B. Epiphysis
C. Diaphysis D. Metaphysis

Ans. (D)

89. Mental tubercles are present in:

A. Mandible B. Scapula
C. Pelvis D. Clavicle

Ans. (A)

90. All of the following ligaments contribute to the stability of ankle (talocrural) joint except:

A. Calcaneonavicular (spring) B. Deltoid
C. Lateral D. Posterior tibiofibular

Ans. (A)

91. The thickest nerve of the body is:

A. Radial B. Median ,
C. Sciatic D. Axillary

Ans. (C)

92. Longest muscle in body is:

A. Sternocleidomastoid B. Latissimus
C. Sartorius D. Psoas major

Ans. (C)

93. Cowper's glands are found in:

A. Labia majora B. Duodenum
C. Prostatic urethra D. Membranous urethra

Ans. (D)

94. Foramen of Winslow is:

A. Between greater and lesser sac B. At hilum of liver
C. In the diaphragm for passage of aorta D. Through which bile duct passes

Ans. (A)

95. Foramen of Bochdalek is found in:

A. Upper part of posterior mediastinum B. Posterior medical part of diaphragm
C. Post, cranial fossa D. Middle part of Perineum

Ans. (B)

96. The femoral ring is bounded by the following structures, except the:

A. Femoral vein B. Lacunar ligament
C. Superior ramus of pubis D. Femoral artery

Ans. (D)

97. The blood supply of liver is:

A. Supplied 1/3 by portal vein and 2/3 by hepatic artery
B. Supplied 2/3 by portal vein and 1/3 by hepatic artery
C. Supplied by 1/2 by portal vein and 1/2 by hepatic artery
D. Supplied 4/5 by portal vein and 1/5 by hepatic artery

Ans. (D)

98. Left gastric artery is a branch of:

A. Coeliac artery B. Superior mesenteric
C. Inferior mesenteric D. Hepatic artery

Ans. (A)

99. The superior mesenteric artery arises opposite the vertebral level:

A. TIl B. T12
C. LI D. L2

Ans. (C)

100. Which vessel enters into right atrium:

A. Aorta B. Pulmonary trunk
C. Superior vena cava C. Pulmonary vein

ANNEX 3

The questions for midpoint assessment

1. The anatomical science at the time of the ancient Greeks.
2. The anatomical science in the ancient Rome.
3. Anatomy in the age of Feudalism.
4. The anatomical science in the renaissance.
5. Anatomy in the age capitalism.
6. The famous Russian anatomists.
7. The human anatomy. The methods of anatomical study.
8. Direction in the body. Plane of division.
9. The function of the skeleton.
10. The chemical composition of bone. The age features of bone.
11. Bone classification.
12. Bone as an organ. Periosteum.
13. The development o bones. The types of ossification. The point of ossification.
14. Cervical vertebraes. The atypical cervical vertebraes (I, II, VI, VII).
15. Thoracic vertebras. The atypical thoracic vertebraes (I, X, XI, XII).
16. Lumdar vertebraes.
17. Sacral and cocygeal vertebraes.
18. Sternum and ribs.
19. Clavicula, scapula.
20. Humerus.
21. Radius and ulna.
22. Bones of the hand.
23. Hip bone.
24. Femure, patella.
25. Bones of the leg.
26. Bones of the foot.
27. Synarthroses. Diarthroses (synovial joint). Hemiarthrosis.
28. Joint classification according to the number of articular surface.
29. Joint classification according to shape.
30. Development of joint.
31. Joint between vertebraes.
32. Joint between ribs and vertebraes.
33. Joint between sternum and ribs.
34. Sternoclavicular joint. Claviculoaromial joint.
35. Sholder joint.
36. Elbow joint.
37. Wrist joint.

38. Joints bones of the hand.
39. Sacroiliac joint. Hip joint.
40. Knee joint.
41. Joint of the leg bones. Ankle joint.
42. Joint the bones of the foot.
43. Development of cerebral skull.
44. Development of visceral skull.
45. Frontal bone.
46. Parietal bone, ethemoid bone.
47. Occipital bone.
48. Temporal bone.
49. Sphenoid bone.
50. Maxilla.
51. Mandibula.
52. Bones of visceral skull.
53. The sutures of the skull. The synchondroses of the skull. The temporomandibular joint.
54. Orbit, features.
55. Nasal cavity, walls, communicating. Paranasal air sinuses.
56. Temporal fossa, intratemporal. Pterygopalatine fossa.
57. External base of the skull.
58. Internal base of the skull.
59. The canals of the temporal bone.
60. The kinds of muscle tissue.
61. The auxillary apparatus of muscle.
62. The classification of muscles.
63. Muscles development.
64. The muscles of facial impression.
65. The muscles of mastication.
66. Muscles of the neck.
67. The muscles of the thorax.
68. The muscles of the abdominal wall.
69. The rectus sheath.
70. The inguinal canal.
71. The lineal alba, umbilicus.
72. The diaphragm, features.
73. The muscles of the back.
74. The muscles connectine humerus with scapula.
75. The muscles of the arm.
76. The muscles of the forearm.
77. The muscles of the hand.
78. The muscles of the pelvic.
79. The muscles of the thigh.

80. The femoral canal, features.
81. The muscles of the leg.
82. The muscles of the foot.
83. The features of the teeth.
84. The features of the tongue.
85. The salivatory glands.
86. The features of the pharynx.
87. The part of esophagus, relation. The constrictors of esophagus.
88. The features of the stomach. The relation of the stomach.
89. The feature of the duodenum.
90. The mesenteric part of small intestine. The anatomical different between ilium and jejineum.
91. The features of the large intestine.
92. The features of the rectum.
93. The external and internal structure of the liver.
94. The features of the gallbladder and common bile duct.
95. The features of the pancreas.
96. The features of the spleen.
97. The features of the peritoneum. The curse of the peritoneum.
98. The development the organs of the gastrointestinal tract.
99. The features of nasal cavity.
100. Features of larynx, relation.
101. The canals of the temporal bone.
102. Development of the larynx, trachea, lungs.
103. Features the of the lungs. Segments of the lungs.
104. The bronchial tree. The alveolar tree.
105. Features of the thyroid gland. Features of the parathyroid gland.
106. Features of the thymus.
107. Features the mediastinum.
108. Structure of the kidney.
109. Development of the urogenital organs.
110. The features of ureter.
111. The features of urinary bladder.
112. The structure of the testis.
113. The layers of the scrotum.
114. The features of the spermatic cord
115. The structure of the prostate and seminal vesicle
116. The male urethra, features.
117. The structure of the ovary.
118. The features of the uterus.
119. Development of the external genital organs.
120. The features of the perineum.

121. The structure of the suprarenal gland.
122. The simplest reflex arc.
123. The classification of the nervous system.
124. Development of the spinal cord.
125. The topography the nuclei of the spinal cord.
126. The conductive tracts of the spinal cord.
127. The external features of the spinal cord.
128. The meninges of the spinal cord.
129. Development of the brain.
130. The cytoarchitectonics (layers) of the cerebral cortex.
131. The localization of the nucleus analysator in the cerebral cortex.
132. The classification of the conductive tracts (association, commissural, projection).
133. The circulation of the cerebrospinal fluid.
134. The limbic system.
135. The features of the cerebellum.
136. The rhomboid fossa, nuclei of cranial nerves.
137. The meninges of the brain.
138. The hypophisis cerebri, features.
139. The penial body, features.
140. The anterior and posterior spinocerebellar tracts.
141. The spinothalamic tract (anterior and lateral).
142. The pyramidal tract.
143. The tectospinal tract.
144. The rubrospinal tract.
145. The bulbothalamic tract.
146. The features of the medulla oblongata.
147. The features of the pons.
148. The features of the midbrain.
149. The diencephalon, features.
150. The cerebral hemisphere, features.
151. The basal nuclei, features.
152. The classification of the sense (special and general).
153. External ear features.
154. Middle ear features.
155. Internal ear bony and membranous labyrinth.
156. The cochlear tract.
157. The vestibular tract.
158. The fibrous coat of the eyeball.
159. The vascular coat of the eyeball.
160. The nervous coat of the eyeball.
161. The refractive media of the eyeball aqueous humor, vitreous, body, lens.
162. The optic tract.

163. Development of the eye.
164. The muscles of the eyeball.
165. The lacrimal apparate.
166. The organ of teste, conductive tract.
167. The organ of smell, conductive tract.
168. The features of the skin.
169. The spinal nerves, features.
170. The cervical plexus, branches.
171. III, IV, VI pairs of the cranial nerves.
172. V cranial nerves, nuclei branches.
173. The facial nerve, nuclei, branches.
174. The vagus nerves, parts, branches.
175. The glossopharyngeal nerve, nuclei branches.
176. XI, XII pairs of the cranial nerves.
177. Cervical part of the sympathetic trunk.
178. The development of the heart.
179. The chambers of the heart.
180. The wall of the heart, features.
181. The conducting system of the heart.
182. The blood supply of the heart.
183. The pericardium, features.
184. The development of the arteries.
185. Arch of aorta, branches, topography.
186. External carotid artery, branches.
187. Internal carotid artery, branches.
188. Subclavian artery, branches.
189. Superior vena cava, formation, tributares.
190. The venous sinuses of the dura matter, the emissary and diploic veins.
191. Internal jugular vein, tributaries.
192. Lymph nodes of head and neck.
193. The pterygopalatine fossa, foramens and their contains.
194. The various pattens in the branches of the intraorganic arteries.
195. Collateral blood circulation.
196. Development of the veins.
197. Blood supply of the featus.
198. The systemic circulation. The pulmonary circulation.
199. The thoracic aorta, branches.
200. The superior vena cava: azygos and hemiazygos veins, brachiocephalic veins.
201. The abdominal aorta, branches.
202. The inferior vena cava, tributaries.
203. The portal vein, tributaries.
204. Internal iliac artery, branches.

205. Internal iliac vein, venous plexuses of the pelvic.
206. The immune system features.
207. The lymphatic system features.
208. The structure of the lymph node.
209. The lymph nodes, vessels and ducts of the thoracic cavity.
210. The lymph nodes, vessels and ducts of the abdominal cavity.
211. The lymph nodes, vessels of the pelvic cavity.
212. The sympathetic part of the vegetative nerve system.
213. The parasympathetic part of the vegetative nerve system.
214. Sympathetic trunk, parts, branches.
215. Cavacaval and portocaval anastomosis.
216. Lumbar plexus, formation, branches.
217. Sacral plexus, formation, short branches.
218. Intercostal nerves, branches.
219. The axillary artery, branches.
220. The brachial artery, branches.
221. The ulnar artery, branches.
222. The radial artery, branches.
223. The anastomosis of the cubital fossa.
224. The superficial veins of upper limb.
225. The lymph nodes and vessels of the upper limb.
226. The short branches of the brachial plexus.
227. The long branches of the brachial plexus.
228. The femoral artery, branches.
229. The popliteal artery, branches.
230. The anterior tibial artery, branches.
231. The posterior tibial artery, branches.
232. Arteries of the foot.
233. The superfecial veins of the lower limb.
234. The lymph nodes and vessels of the lower limb.
235. The long branches of the sacral plexus.

ANNEX 4

Discipline flow chart (General Medicine)

Discipline: Anatomy
Option/track: 31050150_15_13ld.pli.xml
Group:
Credits quantity: ZE = 5
Reporting: credit and exam report card (tests)
Senior lecturer:

Subject name	Control	Control forms			
Module 1					
1. "Osteosyndesmology", "Skull"	formative assessment	General questioning, notes, practical task	5	9	6
	midterm examination	tests	3	5	
Module 2					
2. "Myology"	formative assessment	General questioning, notes, practical task	5	9	9
	midterm examination	tests	3	5	
Module 3					
3. "Digestive system"	formative assessment	General questioning, notes, practical task	5	9	12
	midterm examination	tests	3	5	
Module 4					
4. "Respiratory system"	formative assessment	General questioning, notes, practical task	5	9	15
	midterm examination	tests	3	5	
Module 5					
5. "Urogenital system "	formative assessment	General questioning, notes, practical task	5	9	18
	midterm examination	tests	3	5	
Attendance			2	2	
Total points per semester			40	70	
Midpoint assessment (tests)			20	30	
Semestral rating of descipline			60	100	

Remarks:

1. **For each absence in lecture or practical session – reduce 1 point.**

Discipline flow chart (General Medicine)

Discipline: Anatomy
Option/track: 31050150_15_13ld.pli.xml
Group:
Credits quantity: ZE = 5
Reporting: credit and exam report card (tests)
Senior lecturer:

Subject name	Control	Control forms			
Module 1					
1. "Central nervous system"	formative assessment	General questioning, notes, practical task	5	9	24
	midterm examination	tests	3	5	
Module 2					
2. "Cranial nerves and sense organs"	formative assessment	General questioning, notes, practical task	5	9	25
	midterm examination	tests	3	5	
Module 3					
3. "Heart, vessels and nerves of head and neck "	formative assessment	General questioning, notes, practical task	5	9	27
	midterm examination	tests	3	5	
Module 4					
4. "Vessels and nerves of cavities"	formative assessment	General questioning, notes, practical task	5	9	34
	midterm examination	tests	3	5	
Module 5					
5. "Vessels and nerves of limbs "	formative assessment	General questioning, notes, practical task	5	9	36
	midterm examination	tests	3	5	
Attendance			2	2	
Total points per semester			40	70	
Midterm examination (exam)			20	30	
Semestral rating of descipline			60	100	

Remarks:

1. **For each absence in lecture or practical session – reduce 1 point.**

ANNEX 5

Formative assessment: - mastering the educational material on the in-class session (lectures and practical session) and performance of the required tasks for independing work.

The scale of formative assessment

1st semester

Subject	**Practical session, hour**	**Lectures, hour**	**Share in percentage, %**	**Points**	
				min	**max**
Subject 1 Osteosyndesmology, skul	33	6	30	8	14
Subject 2 Myology	10	6	13	3	6
Subject 3 Digestive System	15	10	20	5	9
Subject 4 Respiratory system	10	2	10	3	5
Subject 5 Urogenital system	22	12	27	7	12
Total	90	36	100	26	46

№ п/п	**Discipline control**	**Share in Percent**	**Points**	
			mın	**max**
1	General questioning	0-60 %	15	27
2	Conspectus	0-10 %	3	5
3	Practical session	0-30 %	8	14
4	Activity	-	2	2
5	Attendance	-	2	2
6	Midterm examination	-	10	20
7	Total		40	70

2nd semester

Subject	Practical session, hour	Lectures, hour	Share in percentage, %	Points	
				min	max
Subject 6 Central nervous system	25	12	31	8	15
Subject 7 Sensory organs	20	6	20	5	9
Subject 8 Vessels and nerves of the head and neck	10	2	9	3	4
Subject 9 Vessels and nerves of cavities	17	8	20	5	9
Subject 10 Nerves and vessels of the limbs	18	8	20	5	9
Total	90	36	100	26	46

№ п/п	Discipline control	Share in Percent	Points	
			mın	max
1	General questioning	0-60 %	15	27
2	Conspectus	0-10 %	3	5
3	Practical session	0-30 %	8	14
4	Activity	-	2	2
5	Attendance	-	2	2
6	Midterm examination	-	10	20
7	Total		40	70

Criteria for educational work during 1st semester are the amount from 30 to 50 points – the admission to midpoint assessment.

The tasks for formative assessment – represent by questions

The KNOWLEDGE – 60 % of the right answers

CALL and SHOW – 40 % of the right answers

It is necessary to show on anatomical models ten parts of various organs.

The level o f v a l u e :

0-100 % 26 – 30 points – excellent
0-85% 21 - 25 points – good
0-50% 15 - 20 points – satisfactory
less than 15 points – unsatisfactory

Midterm examination - checking the completeness of knowledge and abilities is carry out by testing. The level of ability values up to 40 points.

Criteria for testing results and the admission to examination is the positive answer on 60 % of the set questions.

The maximum value of control:
- Formative assessment – 30 points – 30 %;
- Midterm examination – 40 points – 40 %;
- Midpoint assessment (examination) – 30 points – 30 %.

The total result of examination is reflected by a scale:

85 – 100 points – excellent
70 – 84 points – good
60 – 69 points – satisfactory
less than 60 points – unsatisfactory

At the exam the student can get the maximum points - 30. The student can obtain the following marks based on the his/her answers:

21-30 points: He/she has skills in working with the literature. He/she is able to orient in topography and know the structure of organs. The student answers for the questions represented in the task and also can answers for additional questions.

11-20 points: He/she has basic skills in working with literature. He/she is able to find and show parts of the body on the specimens. The student answers for the questions represented in the task, but not fully answers for additional questions.

6-10 points – The student is able to navigate in the structure of the human body. He/she answers not fully for the questions represented in the task and for additional questions.

2-5 points - The student difficulty answers for questions of the task and demonstrates poor knowledge in answering additional questions.

0 points - The student does not know the material.