SPECIALIST DEGREE PROGRAMME 31.05.01 'GENERAL MEDICINE'
COURSE (MODULE) ANATOMY
OVERVIEW

Mode of study	full time
Faculty	International Institute of Medical Education and Cooperation
Department	Normal Human Anatomy
Year	1, 2
Semester	1, 2, 3 – Anatomy (432 ac.h.)
Lectures	72 ac.h.
Exam	3 semester 9 ac.h
Practical classes	150 ac.h
Self-study	201 ac.h
Total workload	432 ac.h (12 credits)

*ac. h. – academic hours

1. OBJECTIVES OF DEVELOPMENT OF EDUCATIONAL DISCIPLINE

The objectives of mastering the discipline "Anatomy" are:

- The formation of competencies in systemic fundamental knowledge, skills in the field of structure and topography of organs and tissues, systems of organs and apparatuses of the human body based on modern scientific achievements and taking into account the requirements of practical medicine, the importance of fundamental research of anatomical science for theoretical and applied medicine;
- The formation of students' ability and willingness to analyze the laws of the structure and functioning of individual organs and systems on the basis of acquired knowledge about their anatomy and topography, and use this knowledge to assess the functional state of the human body of various age groups in order to timely diagnose diseases and pathological processes;
- Fostering a respectful and careful attitude to cadaveric material, highly moral behavior in the sectional hall of a medical university based on the traditional principles of humanism and mercy
- Conducting conversations among students on issues related to the new coronavirus COVID-19.

Objectives of the discipline:

- Studying in the process of practical exercises and lectures the structure, topography and functions of organs, individual and age-related features of the body structure, including the prenatal period of development (organogenesis); anatomical and topographic relationships of organs, their x-ray image; variants of variability of individual organs and malformations of their development;
- Formation of ideas about the principles of an integrated approach in the study of anatomy and topography of organs and their systems; skills to navigate the complex structure of the human body, accurately and accurately find and determine the location and projection of organs and their parts on the surface of the body;
- The formation of knowledge among students about the interdependence and unity of the structure and function of both individual organs and the body as a whole, about the relationship of the body with changing environmental conditions, the influence of environmental, genetic factors, the nature of work, profession, physical culture and social conditions on the development and body structure;
- Formation of students ' ideas about preventive measures on issues related to the

new coronavirus COVID-19;

- Formation of skills for studying scientific literature and official statistical surveys;
- Formation of communication skills in the team, taking into account ethics and deontology.

2. THE COURSE POSITION IN SPECIALIST DEGREE PROGRAMME 31.05.01 "ANATOMY"

The course "Anatomy" refers to block B1.0.08 of the basic part of the general education program of higher education in the direction of 05.31.01 "General Medicine".

To study this academic discipline (module), the following knowledge, skills and abilities formed by previous disciplines are required:

Biology (school course)

Knowledge: levels of organization of living matter; the evolution of the organic world; features of the structure and functioning of the human body; the interaction of the body with the environment.

Skills: comparing the features of the structure and functioning of various organs, systems of organs and apparatuses in the human body; process matching and phenomena at all levels of organization of living matter; establishing sequences of evolutionary processes.

Skills: work with text, drawings, diagrams; solving typical problems in the structure and functioning of organs and systems of the human body; work with dummies, skeletons and wet preparations.

Discipline is prior to the study of disciplines: normal physiology; topographic anatomy and operative surgery; pathological anatomy, clinical pathological anatomy, clinical disciplines.

In this regard, understanding the cause-effect relationships at the stages of ontogenesis, as well as knowledge of the characteristics of individual development, organ structure options and various types of anomalies, is of great importance.

Guided by the traditional principles of humanism and mercy, the student must be taught to respect and carefully treat the object being studied - the organs of the human body, a corpse, and observe high moral standards of behavior in the educational (sectional) halls of a medical university. Take into account the changing environmental conditions, the influence of environmental and genetic factors, the nature of work, profession, physical culture and social conditions on the development and structure of the body.

The program uses the relationship of human anatomy with other medical disciplines in the form of integration of its teaching with biology, histology, physiology, pathology and applied clinical disciplines.

Relationship with medical biology. At the Department of Human Anatomy, the development of the human body in ontogenesis is described and a brief comparison is made with the development of vertebrate animals. At the Department of Biology, the phylogenesis of organs of human functional systems, the relationship between phylogenesis and ontogenesis, the phylogenetic conditionality of malformations, the genetic conditionality of body types and anthropogenesis are studied in detail. Materials from biology and anthropology help to understand the biological nature of man, structural, age and gender characteristics of the human body.

Relationship with histology. At the Department of Human Anatomy, a brief review of organogenesis is carried out. At the Department of Histology, tissue development (histogenesis) is taught in detail and relevant issues of organogenesis are addressed.

Relationship with physiology. At the Department of Human Anatomy, the main functions of organs, systems and apparatuses (functional anatomy) are briefly formulated. At the Department of Physiology, all aspects of human physiology are studied in detail.

Interrelation with operative surgery and topographic anatomy. At the Department of Human Anatomy, in practical classes and in a lecture course, basic information on human anatomy, elements of organ topography, which form the basis for studying surgical surgery with topographic anatomy, are considered.

Based on the requests and requirements of clinical disciplines (internal diseases, surgical diseases, obstetrics and gynecology, etc.), as well as medical and preventive disciplines, examples from the clinic are widely used in teaching human anatomy.

The basic knowledge necessary to study the discipline is formed:

in the cycle of humanitarian and socio-economic disciplines, including: philosophy, bioethics, psychology and pedagogy, history of medicine, Latin;

in the cycle of mathematical and natural sciences, including: physics, mathematics; chemistry; biology; histology, embryology, cytology; normal physiology.

The main theoretical disciplines needed to study human anatomy: biology; physics; chemistry.

3. COMPETENCE OF THE STUDENT FORMED BY THE DEVELOPMENT OF THE EDUCATIONAL DISCIPLINE "ANATOMY"

As a result of mastering the discipline, the student must demonstrate the following educational results:

1. Know:

• safety regulations for staying in a sectional hall and working with biological material;

• the main stages of the history of anatomy;

• methods of anatomical research and anatomical terms (Russian and Latin);

• anatomy and topography of organs, systems and apparatuses of organs, details of their structure and main functions;

• relationship of organs with each other; projection of organs on the surface of the body;

• the main stages of the development of organs (organogenesis);

• basic structural options and possible malformations of organs;

• regularities of the structure of the human body as a whole, the anatomical and functional relationships of the individual parts of the body with each other;

• the importance of basic research of anatomical science for practical and theoretical medicine.

2. Be able to:

• use anatomical instruments (tweezers, a scalpel, etc.) correctly;

• find and show on anatomical preparations organs, their parts, structural details, correctly call them in Russian and in Latin;

• find and isolate muscles and fascia, large vessels, nerves, ducts of glands, individual organs by the method of preparation;

• find and show organs and the main details of their structure on x-rays;

• use scientific literature;

• using acquired knowledge about the structure, topography of organs, their systems and apparatuses, the organism as a whole, clearly navigate the complex structure of the human body, accurately and accurately find and determine the location and projection of organs and their parts on the surface of the body, ie own "anatomical material" for understanding pathology, diagnosis and treatment.

3. Own / be able to demonstrate

• knowledge of basic anatomical terms, medical anatomical conceptual apparatus;

• knowledge of the anatomy and topography of organs, systems and apparatuses of organs, details of their structure and basic functions;

• skills in using anatomical instruments;

• the ability to clearly navigate the complex structure of the human body, accurately and accurately find and determine the location and projection of organs and their parts on the surface of the body, ie own "anatomical material" for understanding pathology, diagnosis and treatment;

• skills of preparation of cadaveric material;

• the ability to show organs and their parts on anatomical preparations, describe structural details, correctly call them in Russian and in Latin.

• basic technologies for information conversion: independent work with educational literature on paper and electronic media, Internet resources on human anatomy.

THE PROCESS OF STUDYING THE DISCIPLINE IS AIMED AT THE FORMATION OF THE FOLLOWING COMPETENCIES:

Competency developed: a description of (compulsory) threshold level	**Development index**	**Competency code**
A student is able to critically analyse problematic situations based on the systemic approach, develop an action strategy	*ID-1$_{UC-1}$ Identifies and critically analyzes the information necessary to solve the task (problem situation)*	UC-1.
	ID-2$_{UC-1}$ Considers and proposes possible options for a systematic approach to solve a problem situation assessing their advantages and disadvantages	
	ID-2$_{UC-1}$ Makes his own conclusions and points of view based on well-reasoned data	
	ID-3$_{UC-1}$ Determines and assesses the risks (consequences) of possible problem solutions	
	ID-4$_{UC-1}$ Makes strategic decisions to problematic situations	
A student is able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional tasks	*ID-1$_{GPC-5}$ Determines and analyzes morphofunctional, physiological states and pathological processes of the human body*	GPC-5

4. THE COURSE (MODULE) "ANATOMY" SYLLABUS AND CONTENTS

4.1 The total complexity of the discipline is 12 credits, 432 hours.

No No n/p	Part (Module)	Semester	week of the semester	Study forms (including self-study and workload in ac.h.)				Formative assessment *(weekly)* Summative assessment (*by semesters)*
				Lectures	Practical classes	Seminars	Self-study	
1	2	3	4	5	6	7	8	9
1	Introduction to Anatomy.	1	1	2		-	2,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
2	Osteology.	1	1-2	2	9	-	13,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
3	Arthrosindesmology.	1	3-4	4	9	-	18,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
4	Craniology	1	6-7	4	12	-	18,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
5	Myology	1	8-11	8	18	-	23,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
6	Splanchnology	2	12 1-6	14	27	-	35,4	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
7	General anatomy of the vascular system. Lymphatic system. Anatomy Endocrine system	2	7-13	14	24	-	31,6	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
8	Central nervous system	3	1-4	8	21	-	26,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
9	Peripheral nervous system. History of Anatomy.	3	5-9	10	30	-	40,0	Current control: A written test, an interview on the topic of the lesson, solving situational problems, independent work Exam 3 semester
	Exam							
	Total			66	150		207	432

Head of the Department of
Normal Human Anatomy
Professor

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