

**AMENDMENTS AND CHANGES TO THE CURRICULUM IN THE EDUCATIONAL DISCIPLINE
«HISTOLOGY, CYTOLOGY, EMBRYOLOGY»**

for the specialty General medicine

for 2024/2025 academic year

Amendments and changes	Basis/Reason
1. Changes have been introduced into the Explanatory Note (appendix 1)	Educational Plan for 2024/2025 academic year
2. Changes have been introduced into the Thematic Plan (appendix 2)	Educational Plan for 2024/2025 academic year
3. Changes have been introduced into the Educational Discipline Curricular Chart (appendix 3)	Educational Plan for 2024/2025 academic year

The curriculum is revised and approved at the department meeting histology, cytology and embryology
(protocol N13 of 13.06 2024)

Head of the department histology, cytology and embryology



Studenikina T.M.

APPROVED

Dean of the Medical Faculty of International Students



Ishutin O.S

Changes in the Explanatory Note

Total number of hours for the study of the discipline is 222 academic hours, of which 137 classroom hours and 85 hours of student independent work. Classroom hours according to the types of studies: lectures - 15 hours (including 3 hours of supervised student independent work (SSIW)), laboratory classes (practical classes - 122 hours).

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures	supervised student independent work	laboratory studies (practical classes and seminars)		
7-07-0911-01 «General Medicine»	2	108	63	9	-	54	45	credit
	3	114	74	3	3	68	40	exam

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	laboratory
1. Introduction into the discipline «Histology, Cytology, Embryology». Overview of objects and methods used in histology	1,5	3
2. Cytology		3
3. Embryology	1,5	14
4. General histology	7,5	24
4.1. Overview of tissue	1,5	2
4.2. Epithelial tissues		4
4.3. Blood and lymph. Hemopoiesis	1,5	6
4.4. Connective tissue	1,5	6
4.5. Muscle tissue	1,5	3
4.6. Nerve tissue	1,5	3
5. Special histology	4,5	78
5.1. Nervous system	1,5	4
5.2. Sense organs	-	4
5.3. Cardiovascular system	-	6
5.4. Organs of hemopoiesis and immunity (lymphoid organs)	1,5	8
5.5. Endocrine system	-	8
5.6. Digestive system	-	16
5.7. Respiratory system	-	6
5.8. Integumentary system	-	6
5.9. Urinary system	-	4
5.10. Reproductive system	-	12
5.11. Principle of diagnostic of histological slides and electronogramm	1,5	4
Total hours	15	122

ACADEMIC DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	Number of hours		Supervised student independent work	Practical skills	Form of control	
		Lectures	practical (laboratory or seminars)			of practical skills	of current / intermediate assessment
	2 semester						
	Lectures	9	-	-			
1,2	Introduction into the discipline «Histology, Cytology, Embryology». Overview of objects and methods used in histology. Cytology/	1,5					
4,1-4,2	Overview of tissue. Epithelial tissue	1,5					
4,3	Blood and lymph. Hemopoiesis	1,5					
4,4	Connective tissue.	1,5					
4,5	Muscle tissue	1,5					
4,6	Nerve tissue	1,5					
	Practical lessons		54				
1	Introduction into the course of «Histology, Cytology, Embryology». Overview of objects and methods used in histology		3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen.	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum.	Interviews, tests. Computer test. Control work.

2	Cytology					Use of histological terminology Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
3	Embryology. Progenesis. The stages of human embryonic development. Fertilization. Cleavage					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
3	Embryology. Gastrulation. Differentiation of the embryonic germ layers					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
4.1 4.2	Overview of tissue. Epithelial tissue					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.

4.3	Blood and lymph					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
4.3	Blood and lymph. Hemopoiesis.			3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
	Final lesson on topics «Methods used in histology», «Cytology», «Embryology», «Overview of tissue», «Epithelial tissue», «Blood and lymph. Hemopoiesis»			3				Interviews. Tests. Computer test.* Control work.
4.4	Connective tissue. Connective tissue proper			3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
4.4	Connective tissue. Skeletal tissue			3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.

						examination of a specimen. Use of histological terminology .					
4.5	Muscle tissue					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3			Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
4.6	Nerve tissue					Microscopy and description of histological slides..	3			Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
5.3	Cardiovascular system. Vessels. Heart					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3			Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
5.7	Respiratory system					Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	3			Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.

	Final lesson on topics «Connective tissue». «Muscle tissue», «Nerve tissue», «Cardiovascular system», «Respiratory system»		3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Diagnostic of histological slides.*	Interviews. Tests. Computer test. Control work.*
	Final lesson on topics «Connective tissue». «Muscle tissue», «Nerve tissue», «Cardiovascular system», «Respiratory system»		3		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work.
5.7	Integumentary system. Skin		3		Microscopy and description of histological slides.	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work. Credit.
3 semester							
	Lectures	3	3				
	Nerve system			1,5			Electronic test
	Organs of hemopoiesis and immunity (lymphoid organs)			1,5			Electronic test
3	Embryology	1,5					
4.1	Principles of the histological slides diagnostics	1,5					
	Practical lessons		68				

5.6	Digestive system. Oral cavity				Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews, Tests. Computer test. Control work
5.6	Digestive system. Anterior part		4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews, Tests. Computer test. Control work
5.6	Digestive system. Middle and posterior part		4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews, Tests. Computer test. Control work
5.6	Digestive system. Glands		4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen.	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews, Tests. Computer test. Control work

5.4	Organs of hemopoiesis and immunity (lymphoid organs)					Use of histological terminology Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
5.5	Endocrine system			4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
	Final lesson on topics «Digestive system», «Organs of hemopoiesis and immunity (lymphoid organs) », «Endocrine system»			4				Interviews. Tests. Computer test Control work*
	Final lesson on topics «Digestive system», «Organs of hemopoiesis and immunity (lymphoid organs) », «Endocrine system»			4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Diagnostic of histological slides*	
5.1	Nervous system			4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of	Interviews. Tests. Computer test. Control work

						histological specimen. Checking the completion of tasks in the practicum		
5.2	Sense organs			4		a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
5.9	Urinary system			4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
5.10	Reproductive system. Male reproductive system			4		Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work

5.10	Reproductive system. Female reproductive system.				Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	4	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
3.	Embryology. Organo- and histogenesis. Critical periods of development			4	Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	4	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
3.	Embryology. Implantation. Extraembryonic organs			4	Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen. Use of histological terminology	4	Microscopy, description and drawing of histological specimen. Checking the completion of tasks in the practicum	Interviews. Tests. Computer test. Control work
5.11	Principles of the histological slides diagnostics			4	Microscopy: the ability to use a microscope and to differentiate the structural elements of tissues within organs during microscopic examination of a specimen.	4	Diagnostic of histological slides.	

