

ЛД-21ИН

Федеральное государственное бюджетное образовательное учреждение высшего
образования
«СЕВЕРО-ОСЕТИНСКАЯ ГОСУДАРСТВЕННАЯ МЕДИЦИНСКАЯ АКАДЕМИЯ»
Министерства здравоохранения Российской Федерации



УТВЕРЖДАЮ
Ректор ФГБОУ ВО СОГМА
Минздрава России
О.В. Ремизов
«24» мая 2023 г.

РАБОЧАЯ ПРОГРАММА ДИСЦИПЛИНЫ

«ПАТОЛОГИЧЕСКАЯ АНАТОМИЯ, КЛИНИЧЕСКАЯ ПАТОЛОГИЧЕСКАЯ АНАТОМИЯ»

основной профессиональной образовательной программы высшего образования
программы специалитета по специальности 31.05.01 Лечебное дело
(образовательная программа, частично реализуемая на английском языке),
утвержденной 24.05.2023 г

Форма обучения очная

Срок освоения ОПОП ВО 6 лет

Кафедра патологической анатомии с судебной медициной

Владикавказ 2023

ЛД-21ИИ

Federal State Budget Educational Institution of Higher Education
NORTH OSSETIAN STATE MEDICAL ACADEMY
health Ministry of Russian Federation



APPROVED

Rector of FSBEI HE NOSMA

O.V. Remizov.

24.05.2023

EDUCATIONAL PROGRAM OF THE DISCIPLINE

«PATHOLOGICAL ANATOMY, CLINICAL PATHOLOGICAL ANATOMY»

the main professional educational program of higher education is
the specialty program in the specialty 31.05.01 General medicine,
approved on 24.05.2023

Form of training full-time

The period of development 6 years

Department of pathological anatomy with forensic medicine

Vladikavkaz, 2023

When developing the work program, the disciplines are based on:

1. The Federal State Educational Standard for the specialty 31.05.01 Medical business, approved by the Ministry of Education and Science of the Russian Federation on August 12, 2020 № 988

2. The curriculum of the OPOP in the specialty 31.05.01 Medical business

ЛД-21-01-21ИИ

ЛД-21-02-22ИИ

ЛД-21-03-23ИИ, approved by the Scientific Council of the Federal State Budgetary Educational Institution of the Ministry of Health of the Russian Federation on May 24, 2023, Protocol №8

The working program of the discipline was approved at the meeting of the Department of Pathological Anatomy with Forensic Medicine on May 22, 2023, Protocol №10.

The working program of the discipline was approved at the meeting of the central coordinating educational and Methodological Council on May 24, 2023, Protocol №5

The working program of the discipline was approved by the Academic Council

Federal State Budgetary Educational Institution of the Ministry of Health of the Russian Federation dated May 24, 2023, Protocol №8

Developers:

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Reviewers:

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Head of the Department of Normal and Pathological Anatomy and Physiology of Animals of the Federal State Budgetary Educational Institution of the Ministry of Agriculture of the Russian Federation, Doctor of Biological Sciences, Professor. Kozyrev S.G.

The contain of working program

1. Name of discipline;
2. List of planned results of training in discipline, correlated with planned results of development of discipline;
3. Determining the place of discipline in educational program structure;
4. Amount of discipline in credit units with determining number of academic and astronomical hours , distributed on work with teacher and on self work for students;
5. Contain of discipline, structured on themes (sections) with definition of hours for different types of educational process;
6. List of educational and methodological support for independent work of students;
7. evaluation tools for certification of students in the discipline ;
8. The list of basic and additional educational literature necessary for the development of the discipline ;
9. The list of resources of the information and telecommunication "Internet" necessary for the development of the discipline;
10. Methodical instructions for students for development of the discipline ;
11. The list of information technologies used in the educational process in the discipline, including a list of software and information reference systems.
- 12.description of the material and technical base necessary for the implementation of the educational process in the discipline
- 13.conducting educational activities using e-learning and distance learning technologies

2. List of planned results of training in discipline and planned results of development of the educational program

№ №	Number/ index of competence	Content of the competence (or part of it)	Content of the disci- pline (or its sec- tions)	Competence achievement indicator	Results		
					To know	To can	To be able
1	2	3					
1.	GPC-5 (general professional competence)	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Introduction to pathology is Necrosis. Apoptosis. Death and postmortem changes.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Causes and mechanisms of development of various types of necrosis, their functional significance • Morphological differences of necrosis from other pathological processes • Determination of apoptosis. Difference between apoptosis and necrosis 	Distinguish between macroscopic and microscopic picture of clinical and morphological forms of necrosis	Skills of morphological diagnosis of necrosis, apoptosis
2.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Metabolic disorders in cells and tissues.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • The definition of dystrophies • Classification of dystrophy. Etiology and morphogenesis of parenchymal, stromal vascular and mixed dystrophy Классификацию дистрофий	interpret morphological changes in cells and determine the main morphological characteristics of protein, fat and carbohydrate parenchymal dystrophy on the basis of the application of histochemical methods of	Skills of morphological diagnosis of dystrophy
3.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Disorders of blood and lymph circulation	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Definition of arterial and venous hyperemia • Types and mechanisms of development of arterial and venous hyperemia • Definition of stasis, its causes • Definition of bleeding, its causes • Definition of hyporemia, types 	<ul style="list-style-type: none"> • diagnose venous hyperemia of various organs according to their macro- and microscopic picture • Explain the outcome of venous hyperemia • Explain the causes of bleeding, the mechanisms of their development, 	Skills morphological diagnostics of disorders of blood circulation

					<ul style="list-style-type: none"> • Violations of-lymph circulation • Violations of the content of tissue fluid • Determination of DIC syndrome, causes and mechanisms of its development • Definition of thrombosis 	<p>the consequences for the body</p> <ul style="list-style-type: none"> • To give a definition of hemorrhage, to name its types, the significance for the organism • To give a morphological characteristic of thrombosis, to distinguish it from thromboembolism and postmortem blood clotting • Assess the importance of embolism for the body, mechanisms of death in pulmonary embolism • Diagnose different types of heart attack by macro-and microscopic picture 	
4.		Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Inflammation	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • The nature, causes and mechanism of inflammation • Phases of inflammation, their morphological characteristics • Classification of inflammation • Morphological characteristics of inflammation <p>Clinical significance and outcomes of exudative inflammation types</p> <ul style="list-style-type: none"> • Types of productive inflammation, causes, mechanisms of development 	<ul style="list-style-type: none"> • To define inflammation, to explain its etiology, the mechanism of development • To give macro - and microscopic characteristics of different types of inflammation • To diagnose granulomatous inflammation in microscopic picture • To diagnose the productive inflammation at the macroscopic picture • The diagnosis of tuberculosis granulomas on microscopic picture 	Skills of morphological diagnosis of various types of inflammation

5.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Pathology of the immune system	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Types of immunopathological processes • Main types of hypersensitivity reactions • Definition, classification of autoimmune diseases • Primary and secondary immunodeficiency 	to give macro - and microscopic characteristics of morphological changes in hypersensitivity reactions	Skills of morphological diagnostics of hypersensitivity reactions
6.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	The processes of regeneration and adaptation	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Determination of adaptation and compensation • Essence of compensatory and adaptive processes • Types of compensatory and adaptive processes • Types of hypertrophy, mechanisms of their development • Types of regeneration, their mechanisms <p>The concept of metaplasia</p>	<ul style="list-style-type: none"> • To diagnose hypertrophy of the myocardium at the macro - and microscopic picture • To diagnose granulation tissue on a microscopic picture • To diagnose the atrophy at the macroscopic picture 	Skills of morphological diagnostics of compensatory-adaptive processes
7.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Tumor growth. Tumors of epithelial tissue.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • The definition of tumor • Theories of development of tumors • Three principles of tumor classification • Basic theory of the origin of tumors • Classification of epithelial tumors • Characteristic of papillomas • Types of adenomas • Types of cancers 	<ul style="list-style-type: none"> • Distinguish types of epithelial tumors based on their morphological characteristics • Diagnose benign tumors of glandular epithelium • To diagnose a benign tumor "adenoma of the kidney" 	Skills of morphological diagnosis of epithelial tumors
8.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Tumors of nervous, mesenchymal, melanin-forming tissues	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Features of growth of mesenchymal tumors, tumors of nervous and melanin-forming tissue. • Characteristics of the main tumors 	<ul style="list-style-type: none"> • Diagnose benign tumor of connective tissue - "Fibroma" • Diagnose malignant tumor of connective tissue – «Fibrosarcoma» • To diagnose a brain tumor at the microscopic picture • To diagnose melanoma of the skin 	Skills of morphological diagnosis of mesenchymal tumors

					from mesenchymal, nervous and melanin-forming tissues		
9.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the hematopoietic organs and lymphoid tissue.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Classification of diseases of hematopoietic and lymphoid tissues • Principles of leukemia classification • Morphological changes in organs in acute and chronic leukemia • Characteristics of Hodgkin's and non-Hodgkin's lymphomas • Classification of anemia 	<ul style="list-style-type: none"> • Be able to give morphological characteristics of acute and chronic leukemia and anemia • Be able to give a morphological characteristic of Hodgkin's lymphoma 	Skills of morphological diagnosis of leukemia and anemia
10.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Introduction to nosology. The doctrine of diagnosis. Thanatology. Iatrogenies. Atherosclerosis. Hypertensive disease	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • definition of atherosclerosis • the factors leading to the development of atherosclerosis • theories of atherosclerosis • the stage of morphogenesis of atherosclerosis • clinical and morphological forms of atherosclerosis • complications of atherosclerosis • Risk factors and theories of hypertension • Clinical and morphological forms and stages of hypertension 	<ul style="list-style-type: none"> • Diagnose atherosclerosis of the aorta, the macroscopic picture • To diagnose atherosclerotic nephrosclerosis in the macroscopic picture to Diagnose hypertrophy of the myocardium at the macroscopic picture • To diagnose hypertrophy of the myocardium at microscopic picture 	Skills of morphological diagnosis of stages of atherosclerosis and hypertension
11.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Coronary heart disease. Cerebrovascular diseases	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Etiology, classification and pathogenesis of Coronary heart disease • Pathological anatomy of ischemic heart disease • Etiology of cerebrovascular diseases • Classification, pathogenesis and pathological anatomy of cerebrovascular diseases 	<ul style="list-style-type: none"> • To diagnose bleeding in the brain at the macroscopic picture • To diagnose bleeding in the brain at the microscopic picture • to determine macro-and microscopic manifestations of ischemic heart 	Skills of morphological diagnosis of myocardial infarction, ischemic and hemorrhagic strokes

						<ul style="list-style-type: none"> disease and cerebrovascular diseases to determine macro-and microscopic manifestations of ischemic heart disease and cerebrovascular diseases to determine macro-and microscopic manifestations of ischemic heart disease and cerebrovascular diseases 	
12.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Rheumatic disease.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> Definition of rheumatism Etiology and pathogenesis of rheumatism Clinical and morphological forms of rheumatism Etiology, pathogenesis, pathomorphology of systemic lupus erythematosus Etiology, pathogenesis, pathomorphology of rheumatoid arthritis 	<ul style="list-style-type: none"> Diagnose acute warty endocarditis by macroscopic picture To diagnose mucoid swelling of the endocardial rheumatism for the microscopic picture To diagnose heart disease at the macroscopic picture Diagnose rheumatic granuloma at different stages of its maturation by electron microscopic picture 	Skills of morphological diagnosis of rheumatic diseases
13.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Lung disease	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> Classification of acute pneumonia Etiology, pathogenesis and pathology is a lobar pneumonia Etiology, pathogenesis and pathology is focal pneumonia Etiology, pathogenesis and pathology is bronchial asthma Etiology, pathogenesis and pathology is bronchiectasis Etiology, pathogenesis and pathology is emphysema Etiology, pathogenesis, classifica- 	<ul style="list-style-type: none"> Diagnose pneumonia and its stage by macroscopic picture. To diagnose croupous pneumonia by microscopical picture. Diagnose bronchopneumonia by macro-and microscopic picture To diagnose bronchiectasis and pulmonary fibrosis in the macroscopic picture To diagnose bronchiectasis and pulmonary fibrosis in microscopic 	Skills morphological diagnosis of pneumonia, bronchiectasis, emphysema, pneumosclerosis, lung cancer

					tion and patanatomy of lung cancer	picture <ul style="list-style-type: none"> Diagnostic o chronic obstructive pulmonary emphysema on the basis of microscopic picture 	
14.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the gastrointestinal tract.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> Etiology, pathogenesis, morphological characteristics of acute and chronic gastritis Etiology, pathogenesis, morphological characteristics of peptic ulcer Complications of peptic ulcer disease Etiology, pathogenesis, morphological characteristics of appendicitis, its complications, outcomes 	<ul style="list-style-type: none"> Diagnose chronic gastritis by macroscopic picture To diagnose chronic ulcer of the stomach according to the macroscopic picture To diagnose chronic stomach ulcers according to the microscopic picture To diagnose phlegmonous appendicitis on the macroscopic picture 	Skills of morphological diagnosis of gastritis, gastric ulcer, appendicitis, Crohn's disease.
15.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the liver, biliary tract and exocrine pancreas.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> Definition, classification, etiology, pathogenesis, morphological characteristics, complications, outcomes of hepatitis. Definition, classification, etiology, pathogenesis, morphological characteristics, complications, outcomes of liver cirrhosis Definition, classification, etiology, pathogenesis, morphological characteristics, complications, outcomes of hepatosis 	<ul style="list-style-type: none"> To diagnose toxic dystrophy of the liver for microscopic picture To diagnose fatty liver (steatosis) macroscopic picture Diagnose acute viral hepatitis by microscopic picture 	Skills of morphological diagnosis of hepatitis, hepatosis, cirrhosis, liver cancer
16.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body	Kidney disease.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological	<ul style="list-style-type: none"> To diagnose subacute glomerulonephritis "large mottled kidneys" at the macroscopic picture Diag- 	<ul style="list-style-type: none"> Classification of glomerulopathy Definition, classification, etiology, pathogenesis, morphological character- 	Skills of morphological diagnosis of acute, subacute and chronic glomerulo-

		to solve professional problems		processes of the human body	<p>nose extracapillary productive glomerulonephritis by microscopic picture</p> <ul style="list-style-type: none"> • To diagnose amyloidosis of the kidneys in microscopic picture • Diagnose purulent pyelonephritis by microscopic picture • To diagnose necrotizing nephrosis in the microscopic picture 	<p>istics, complications, outcomes of glomerulonephritis</p> <ul style="list-style-type: none"> • Complications, outcomes of glomerulonephritis classification of tubulopathy • Etiology, pathogenesis, classification and pathological anatomy of pyelonephritis • Etiology, pathogenesis, classification and pathological anatomy of acute renal failure • Etiology, pathogenesis, classification and pathological anatomy of kidney stones 	nephritis, pyelonephritis, kidney stone disease
17.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	General characteristics of the infectious process. Infectious / parasitic diseases	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • To diagnose influenza bronchopneumonia at the microscopic picture • Diagnose changes in the spinal cord in the paralytic stage of polio by microscopic picture • To diagnose typhus rash on the microscopic picture • Give a microscopic description of diphtheria angina in diphtheria • Give the microscopic characteristic of fatty degeneration of the myocardium in diphtheria • Give a microscopic description of myocarditis in diphtheria • Diagnose the first stage of local changes in typhoid by microscopic picture • Diagnose the first stage of local changes in typhoid by microscopic picture 	<ul style="list-style-type: none"> • Distinguishing features of viral infections and rickettsiosis from bacterial infections • Clinical and morphological forms of influenza • Local and General changes in measles • Etiology, pathogenesis, morphological characteristics of polio, complications, outcomes. • Etiology, pathogenesis, morphological characteristics of typhus, complications, outcomes • Etiology, pathogenesis and pathological anatomy of diphtheria • Etiology, pathogenesis and pathological anatomy of scarlet fever • Etiology, pathogenesis and 	Skills of morphological diagnosis of bacterial, viral airborne infections, intestinal infections, tuberculosis, syphilis

					<ul style="list-style-type: none"> • To diagnose changes of the small intestine with cholera at the microscopic picture • Diagnose tuberculosis of the lymph node by microscopic picture • To diagnose miliary tuberculosis of the lungs in macroscopic picture • Diagnose syphilitic mesaortitis by microscopic picture • To diagnose septic endometritis at the microscopic picture 	<p>pathological anatomy of meningococcal infection</p> <ul style="list-style-type: none"> • Etiology, pathogenesis, pathological anatomy of typhoid fever • Etiology, pathogenesis, pathological anatomy of dysentery • Etiology, pathogenesis, pathological anatomy of salmonellosis • Etiology, pathogenesis, pathological anatomy of cholera • Etiology, pathogenesis and classification of tuberculosis • Pathological anatomy of various forms of primary and secondary tuberculosis • Etiology, pathogenesis, classification and pathological anatomy of syphilis • Etiology, pathogenesis, classification and pathological anatomy of sepsis 	
18.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the endocrine system.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Classification of diseases of endocrine glands • Etiology, pathogenesis, complications of diabetes, causes of death • Etiology, pathogenesis, classification, complications of goiter, causes of death 	<ul style="list-style-type: none"> • Diagnose diabetic macroangiopathy by macroscopic picture • To diagnose tissue changes in the pancreas in diabetes mellitus in microscopic picture • Diagnose a complication of diabetes mellitus - gangrene of the foot by macroscopic picture • To diagnose changes in kidney in diabetes mellitus in microscopic picture 	

						To diagnose a colloid goiter in the microscopic picture. To diagnose graves ' disease according to the microscopic picture	
19.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the reproductive system and mammary glands	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Classification of diseases of the genitals and breast • Types of ectopic pregnancy • Forms of prostatic hypertrophy • Cervical cancer • Uterine body cancer • Diseases of the mammary glands • Benign dishormonal diseases 	<ul style="list-style-type: none"> • describe the pattern of ectopic pregnancy on the macropreparation «Ectopic pregnancy.» • Diagnose ectopic pregnancy • Diagnose dishormonal disease of the uterus by microscopic picture. 	Skills of morphological diagnosis of ectopic pregnancy, dishormonal, inflammatory and tumor diseases of the reproductive system
20.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Perinatal diseases	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Etiology, pathogenesis, pathological anatomy of various pathological processes of the prenatal period • Terms and patterns of the prenatal period • Characteristic of teratogenic termination period • Types of gametopathies • Types of embryopathies • Etiology, pathogenesis, pathological anatomy of toxoplasmosis • Etiology, pathogenesis, pathological anatomy of cytomegaly • Etiology, pathogenesis, pathological anatomy of congenital syphilis 	<ul style="list-style-type: none"> • To diagnose by macroscopic picture of the cleft arterial duct • Diagnose the macroscopic picture of congenital hydrocephalus • Diagnose by macroscopic picture of phocomelia • To diagnose by macroscopic picture of polydactyly • Diagnose the macroscopic picture of polycystic kidney disease • To diagnose productive granulomas in the peribronchial tissue with cytomegalovirus according to the microscopic picture • Diagnose milary liver gumies by microscopic picture • To diagnose pseudocyst and single Toxoplas- 	Skills of morphological diagnosis of perinatal infectious and non-infectious diseases

						ma in the brain at the microscopic picture	
21.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Diseases of the perinatal period Pathology of the placenta and umbilical cord. Pathology of pregnancy and postpartum period	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Classification of diseases of the perinatal period • Prematurity and tolerability criteria • Etiology, pathogenesis and pathological anatomy of asphyxia 	<ul style="list-style-type: none"> • Etiology, pathogenesis and pathological anatomy of asphyxia • To diagnose pneumopathy for macro specimens "Atelectasis". • To explore and describe macro specimens "Cephalohematoma» 	Skills of morphological diagnosis of diseases of the perinatal period
22.	GPC-5	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems PC-6	Structure, role and tasks of pathoanatomical service. Pathoanatomical diagnosis. Biopsy section. Sectional section.	GPC-5 AI-3 Determines the morphofunctional, physiological states and pathological processes of the human body	<ul style="list-style-type: none"> • Main tasks of the pathology service • Categories of discrepancy between clinical and pathomorphological diagnoses • Categories of deceased subject to mandatory autopsy • Know the basic methods and techniques of autopsy • Structure and logic of pathoanatomical diagnosis • Main methods of biopsy diagnostics 	<ul style="list-style-type: none"> • Be able to formulate a pathological diagnosis • Be able to write a death certificate 	Skills techniques autopsy techniques of the Ball and Abrikosov, holding samples from section table
23.	PC-6	Maintenance of medical records and organization of the activities of the secondary medical personnel at their disposal	Structure, role and tasks of pathoanatomical service. Pathoanatomical diagnosis. Biopsy section. Sectional section.	PC-6 AI-5 Fills in medical documentation, including in electronic form	Structure and logic of the pathoanatomical diagnosis	Be able to formulate a pathoanatomical diagnosis Be able to write out a death certificate	Death certificate registration skills

3. Discipline in the structure of the educational program

The discipline "Pathological anatomy, clinical pathological anatomy" belongs to the basic part of Block 1 of the Federal state educational standard IN the specialty in the specialty "Medical faculty".

4.Scope of the discipline

Type of work		Total credits	Common amount of hours/ credit unit	Semester		
				№ 5	№ 6	№ 7
				hours	hours	hours
Contact work of students with teacher (total), including:			170	100	46	24
Lectures			50	28	16	6
Practical class			120	72	30	18
Seminars						
laboratory work						
Independent work of the student			82	44	26	12
Type of interim certification	credit (C)					credit
	exam (E)	1	36		36	
TOTAL: Total intensity	hours		288	144	108	36
	Credit units	8		4	3	1

5. Content of the discipline

п/№	№ se- mes- mes- ter	Name of the section of the discipline	Types of educational activities, including independent work of students (in hours)				Forms of current performance monitoring
			L	PC	IWS	total	
1.	5	Introduction to pathology is Necrosis. Apoptosis. Death and postmortem changes.	1	4	-	5	testing the decision of situational tasks survey
2.	5	Dystrophies. General characteristic. Morphogenesis. Parenchymal dystrophy	1	4	3	8	testing the decision of situational tasks survey
3.	5	Stromal-vascular dystrophy	2	4	3	9	testing the decision of situational tasks survey
4.	5	Mixed dystrophies.	2	4	3	9	testing the decision of situational tasks survey

5.	5	Damage and death of cells.	2	4	3	9	testing the decision of situa- tional tasks survey
6.	5	General circulatory system disorders.	1	4	3	8	testing the decision of situa- tional tasks survey
7.	5	Local circulatory system disorders.	1	4	3	8	testing the decision of situa- tional tasks survey
8.	5	Inflammation.	2	4	3	9	testing the decision of situa- tional tasks survey
9.	5	Pathology of immune system	2	4	3	9	testing the decision of situa- tional tasks survey
10.	5	Regeneration and adaptation.	2	4	3	9	testing the decision of situa- tional tasks survey
11.	5	Introduction to oncomorphology. The main properties of tumors. Tu- mors of epithelium.	2	4	3	9	testing the decision of situa- tional tasks survey
12.	5	Tumors of mesenchymal, nervous and melaninproductive tissues.	2	4	3	9	testing the decision of situa- tional tasks survey
13.	5	Diseases of the hematopoietic organs and lymphoid tissue.	2	4	3	9	testing the decision of situa- tional tasks survey
14.	5	Introduction to nosology. Diagnosis. Thanatology. Diseases of the cardio- vascular system. Atherosclerosis. Hypertensive disease	2	4	3	9	testing the decision of situa- tional tasks survey
15.	5	Ischemic heart disease. Cerebrovas- cular diseases.	2	4	3	9	testing the decision of situa- tional tasks survey
16.	5	Rheumatic disease.	2	4	2	8	testing the decision of situa- tional tasks survey
17.	5	Colloquium	-	8	-	8	testing the decision of situa- tional tasks survey

18.	6	Pulmonary disease	2	2	2	6	testing the decision of situational tasks survey
19.	6	Diseases of the gastrointestinal tract.	2	2	2	6	testing the decision of situational tasks survey
20.	6	Diseases of the liver, biliary tract and exocrine pancreas.	2	2	2	6	testing the decision of situational tasks survey
21.	6	Kidney disease.	2	2	4	8	testing the decision of situational tasks survey
22.	6	General characteristics of the infectious process. Viral infections, rickettsiosis, bacterial airborne infections	2	2	2	6	testing the decision of situational tasks survey
23.	6	Intestinal infection. Quarantine infections	2	2	2	6	testing the decision of situational tasks survey
24.	6	Tuberculosis. Syphilis. Sepsis	2	2	2	6	testing the decision of situational tasks survey
25.	6	Diseases of the endocrine system.	1	2	2	5	testing the decision of situational tasks survey
26.	6	Diseases of the reproductive system and mammary glands.	1	2	2	5	testing the decision of situational tasks survey
27.	6	Perinatal diseases		2	2	4	testing the decision of situational tasks survey
28.	6	Perinatal diseases		2	2	4	testing the decision of situational tasks survey
29.	6	Pathology of the placenta and umbilical cord. Pathology of pregnancy and postpartum period		2	2	4	testing the decision of situational tasks survey
30.	6	Colloquium	-	6	-	6	testing the decision of situational tasks survey

31.	7	Structure, role and objectives of the pathoanatomical service. Section the district section.	2	4	3	9	testing the decision of situational tasks survey
32.	7	Structure and logic of pathoanatomical diagnosis. Categories of a divergence of diagnoses	2	4	3	9	testing the decision of situational tasks survey
33.	7	Biopsy diagnosis method	2	4	3	9	testing the decision of situational tasks survey
34.	7	Commissions that study death causes		4	3	7	testing the decision of situational tasks survey
35.	7	Credit lesson		2			testing the decision of situational tasks survey
36.		In common:	50	120	82	252	

6. List of methodical instructions for students work to the discipline

№/п	semester №	Name of methodical instructions
1.	5	Dystrophies. General characteristic. Morphogenesis. Parenchymal dystrophy
2.	5	Stromal-vascular dystrophy
3.	5	Mixed dystrophies.
4.	5	Damage and death of cells.
5.	5	General circulatory system disorders.
6.	5	Local circulatory system disorders.
7.	5	Inflammation.
8.	5	Pathology of immune system
9.	5	Regeneration and adaptation.
10.	5	Introduction to oncomorphology. The main properties of tumors. Tumors of epithelium.
11.	5	Tumors of mesenchymal, nervous and melaninproductive tissues.
12.	5	Diseases of the hematopoietic organs and lymphoid tissue.
13.	5	Introduction to nosology. Diagnosis. Thanatology. Diseases of the cardiovascular system. Atherosclerosis. Hypertensive disease
14.	5	Ischemic heart disease. Cerebrovascular diseases.

15.	5	Rheumatic disease.
16.	6	Pulmonary disease
17.	6	Diseases of the gastrointestinal tract.
18.	6	Diseases of the liver, biliary tract and exocrine pancreas.
19.	6	Kidney disease.
20.	6	General characteristics of the infectious process. Viral infections, rickettsiosis, bacterial airborne infections
21.	6	Intestinal infection. Quarantine infections
22.	6	Tuberculosis. Syphilis. Sepsis
23.	6	Diseases of the endocrine system.
24.	6	Diseases of the reproductive system and mammary glands.
25.	6	Perinatal diseases perinatal diseases
26.	6	Pathology of the placenta and umbilical cord. Pathology of pregnancy and postpartum period
27.	6	Патология плаценты и пуповины. Патология беременности и послеродового периода. Методические указания к практическим занятиям для студентов
28.	7	Руководство по биопсийно-секционному курсу. М.А. Пальцев
29.	5	Practicum for general pathological anatomy K.M. Kozyrev, K.D. Salbiev , A.A. Epxhiev
30.	5, 6	Practicum for particular pathological anatomy., K.M. Kozyrev, T.M. Gatagonova, Z.T. Astakhova, K.D. Salbiev

7. evaluation materials for conducting intermediate certification of students in the discipline

№/п	Перечень компетенций	№ семестра	Показатель(и) оценивания	Критерий(и) оценивания	Шкала оценивания	Наименование ФОС
1	2	3	4	5	6	7
1	GPC-5 PC-6	5,6,7	See the standard for evaluating the quality of education, approved by. By order of the Federal state budgetary EDUCATIONAL institution IN SOGMA of the Ministry of health of Russia from 10.07.2018 No. 264/0	See the standard for evaluating the quality of education, approved. By order of the Federal state budgetary EDUCATIONAL institution IN SOGMA of the Ministry of health of Russia from 10.07.2018 No. 264/0	See the standard for assessing the quality of education, approved. By order of the Federal state budgetary EDUCATIONAL institution OF the MINISTRY of health of the Russian Federation dated 10.07.2018 No. 264/0	Exam tickets; Test tasks; modular questions

8. The list of main and additional educational literature, necessary for the study of the discipline

п/ №	Name	Author	Year, publication	Number of copies		Name of electronic library / links
				library	on the department	
1	2	3	4	5	6	7
1.	Патологическая анатомия: учебник	А.И.Струков, В.В.Серов.	М.: ГЭОТАР-Медиа, 2014	50	-	«Консультант студента» http://www.studmedlib.ru/ru/book/ISBN9785970432600.html
2.	Патологическая анатомия: учебник	А.И.Струков, В.В.Серов.	М.: Литера, 2010.	196	2	«Консультант студента» http://www.studmedlib.ru/ru/book/ISBN9785904090265.html

Additional educational literature

п/ №	Name	Author	Year, publication	Number of copies		Name of electronic library / links
				library	on the department	
1	2	3	4	5	6	7
1	Руководство к практическим занятиям по патологической анатомии.	М. А. Пальцев Н. М. Аничков М.Г. Рыбакова	М.: Медицина, 2002.	7	1	-
2	Атлас по патологической анатомии.	М.А. Пальцев А.Б.Пономарев	М.: Медицина, 2005.	36	1	-
3	Практикум по общей патологической анатомии.	К.М. Козырев К.Д. Салбиев А.А.Епхиев	Владикавказ: Проект пресс, 2006	59	2	-
4	Цикл лекций по патологической анатомии.	Г.З. Лекоев	Владикавказ, 2010.	138	4	-
5.	Патологическая анатомия Учебник в 2-х томах	М.А. Пальцев Н.М Аничков.	М.: Медицина, 2005.	35	1	-
6	Патологическая анатомия. Атлас	В.В. Серов Н.Е. Ярыгин В.С Пауков	М.: Медицина, 1986.	317	2	-
7	Руководство по биопсийно-секционному курсу	М.А. Пальцев	М.: Медицина, 2004	22	-	-
8	Патологическая анатомия. Атлас	В.С Пауков В.В. Серов Н.Е. Ярыгин	М.: Медицина, 2015	3	-	-

СОГЛАСОВАНО
Зав. библиотекой

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

Information system «Гарант»

Information system «Госреестр»

Microsoft Office

Power Point

Acrobat reader

Internet Explorer network resources [http: www.studmedlib.ru](http://www.studmedlib.ru) – консультант студента

«Консультант студента»

<http://www.studmedlib.ru/ru/book/ISBN9785970432600.html>

10. Methodical instructions for students

Education includes classroom training (168 hours), lectures, practical training, selfwork training (84 hours). The main training time is allocated for practical work on the study and disclosure of the fundamental laws of development of changes inherent in a particular pathological process or disease, the understanding of which is necessary for further training in clinical disciplines.

When studying the discipline it is necessary to use the basic and additional recommended literature and to master practical skills in macro-and microscopic diagnosis of pathological processes.

Практические занятия проводятся в виде устного опроса, демонстрации макро- и микро-препаратов, присутствия на патологоанатомических вскрытиях, использования наглядных пособий, решения ситуационных задач, ответов на тестовые задания.

Practical classes consist of survey, demonstrations of macro - and micro preparations, the presence at postmortem autopsies, the decision of situational tasks, answers to test tasks.

In the educational process are widely used active and interactive forms of training (videos, situational tasks, independent extracurricular activities). The share of classes held in interactive forms is not less than 10% of classroom lessons.

Independent work of students involves the preparation of the formation of a systematic approach to the analysis of medical information and includes writing abstracts, the study of additional literature.

During the study of the discipline students independently study macro-and micro-preparations, make out an album-workshop.

Writing an abstract forms the ability to analyze medical problems, contributes to the acquisition of additional knowledge.

Student's work in the group forms a sense of collectivism and sociability.

Training of students promotes education at them skills of communication with the patient taking into account ethical and deontological features of pathology and patients.

The initial level of knowledge of students is determined by testing, the current control of mastering the subject is determined by an oral survey during classes, during clinical trials, in solving typical situational problems and answers to test tasks.

At the end of study of discipline is carried out, the intermediate control of knowledge with use of the test control, a test of practical skills and problem solving.

11. List of informational technologies, used in educational process

Semester	Type of employment	Informational technologies	Number of classes	% of lesson in interactive form	List of software
3,4	L	Slides, teaching videofilms	4,6	10	Microsoft Office Internet Explorer
3,4	Pr	Slides	12,2	10	Microsoft Office Internet Explorer

		Test tasks Situational tasks List of questions for module			
3,4	S		8,4	10	Microsoft Office Internet Explorer

12. Description of material and technical base, which is needed for educational process

№/ п	Name of equipment	Number	Technical condition
1	2	3	4
Special equipment			
1.	Computer	4	acceptable
2.	Projector	2	good
3.	Notebook	1	Replacement needed
4.	Tables	90	Replacement needed
5.	Videofilms	3	good
6.	Microscopes	35	acceptable
Phantom			
7.	-		
Models			
8.	Museum of macropreparations	110	acceptable
9.	Museum of micropreparations	300	acceptable

13. Conducting educational activities using e-learning and distance learning technologies

In the context of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow full-time training, it is possible to study this discipline or part of it using e-learning and distance educational technologies.

Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, monitoring progress, as well as intermediate certification of students, platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use in the academy, such as Moodle, Zoom, Webinar, etc.

Lectures can be presented in the form of audio, video files, "live lectures", etc.

Conducting seminars and practical classes is possible in on-line mode both in synchronous and asynchronous modes. Seminars can be conducted in the form of web conferences.