Approved by Deputy Rector for Academic Affairs

\_\_\_\_\_E.V. Konovalova

15 June 2023 г., Record №5

# **Pathologic Anatomy**

# Syllabus

Department	Pathophysiology and general patholog	y
Curriculum	s310501- ЛечДелоИн -23-3.plx Specialty 31.05.01 General Medicine	
Qualification	General Practitioner	
Form of education	Full-time	
Total (in credits)	7	
Total academic hours including:	252	Control: Exam, 6 <sup>th</sup> term
Classes	160	
Self-study	65	

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## Course outline in terms

Control:

Academic year (Term)	5 (3.1)		6 (3	6 (3.2)		Total	
Weeks	17	2/6	16	4/6			
Types of classes	Cur	Syl	Cur	Syl	Cur	Syl	
Lectures	16	16	16	16	32	32	
Practical	64	64	64	64	128	128	
Total aud.	80	80	80	80	160	160	
Contact	80	80	80	80	160	160	
Self-study	28	28	37	37	65	65	
Control			27	27	27	27	
Total	108	108	144	144	252	252	

The Syllabus is compiled by: Doctor of Medical Sciences, Professor, Naumova L.A.

The Syllabus Pathological anatomy

Developed in accordance with Federal State Educational Standard: Federal State Educational Standard of higher education in the specialty 31.05.01 General medicine (Order of the Ministry of Education and Science of the Russian Federation on 12.08.2020 г. № 988)

Based on the Curriculum: 31.05.01 GENERAL MEDICINE Specialization: General Medicine Approved by the Academic Council of Surgut State University, 15.06.2023 Record № 5..

The Syllabus was approved by the department Pathophysiology and general pathology

Head of the Department, Doctor of Medical Sciences, Professor Kovalenko L.V.

#### **1. COURSE OBJECTIVES**

1.1 Obtaining systematic knowledge about the causes, patho- and morphogenesis, clinical manifestations, outcomes and complications of the most important pathological processes and human diseases; skills of clinical and morphological comparisons and the basics of general pathological (clinical) thinking - the ability to analyze various (clinical and anamnestic, laboratory, functional, morphological, etc.) data about a process or a patient with the formation of a holistic vision of human pathology, understanding the importance of pathogenetic therapy and the basics of its tactics.

#### 2. COURSE OVERVIEW

Course	e code (in curriculum): B1.0.04
	Assumed background:
	Foreign language in the professional field (Russian language)
	Propaedeutics of internal diseases
	Foreign language (Russian)
	Biochemistry
	human anatomy
	normal physiology
	Philosophy
	Biology
	History of medicine
	Introduction to professional activity. Ethics and deontology (bioethics)
	Latin language
	Physics mathematics
	Chemistry
	Histology, embryology, cytology
	Post-requisite courses and practice:
2.2.1	Industrial practice for obtaining professional skills and experience of professional activity in the positions of
2.2.1	paramedical personnel
2.2.2	Industrial practice of a diagnostic profile
2.2.3	Topographic anatomy, operative surgery
2.2.4	Pathophysiology
2.2.5	Pharmacology
2.2.6	Immunology and Allergology
2.2.7	infectious diseases
2.2.8	Radiation diagnostics
2.2.9	Neurology, medical genetics, neurosurgery
2.2.10	Otorhinolaryngology
2.2.11	Propaedeutics of internal diseases
	Gynecology
	general surgery
2.2.14	Urology
	Clinical pathological physiology
	Pathological syndromes in clinical medicine
	Preparation for passing and passing the state exam
	Oncogynecology
	Emergency Medicine
	Phthisiology
	Pediatrics
	Clinical pharmacology
	medical rehabilitation
	Dermatovenereology
	Anesthesiology, resuscitation, intensive care
	Traumatology and Orthopedics
2.2.27	Oncology, radiation therapy

2.2.28	Ophthalmology
2.2.29	Forensic Medicine
2.2.30	Occupational diseases
2.2.31	Faculty Therapy
2.2.32	Hospital therapy (5 course)
2.2.33	Endocrinology
2.2.34	Hospital therapy (6 course)
2.2.35	Obstetrics
2.2.36	Industrial practice of a therapeutic profile
	Faculty Surgery
	Hospital surgery. Pediatric surgery
2.2.39	Hospital surgery
	Industrial practice of a surgical profile
2.2.41	Industrial practice of obstetrics and gynecology
2.2.42	Industrial practice in emergency medical manipulations using simulation technologies
2.2.43	Cardiovascular surgery and functional diagnostics
2.2.44	Perinatology
2.2.45	Clinical pathological anatomy

### 3. COMPETENCES UPON COMPLETION OF THE COURSE (MODULE)

GPC -5.6. Demonstrates knowledge and skills to identify: the structure of the human body, morphological macro - and microscopic parameters in pathology; diagnose criteria of general pathological pathophysiological processes in various nosologies; on the basis of which he has the skills to the full topographic anatomy and is able to solve issues of operative surgery

GPC -5.8. Demonstrates an understanding of the mechanisms of development of general pathological processes, knowledge of the pathogenesis of various diseases and pathological conditions of a person, the ability to identify the leading links pathogenesis in their relationship with a specific disease or pathological condition and on this basis ability to justify effective pharmacotherapy

GPC -5.9. Demonstrates knowledge of the theoretical foundations of immunology, allergology, understanding of immune defense mechanisms, types of immunological reactions and their role in the pathogenesis of human diseases

#### By the end of the course students must:

3.1	Know:
3.1.1	basic methods of pathoanatomical research;
3.1.2	essence, patterns of development and clinical significance of the most important morphofunctional, physiological conditions and pathological processes in the human body;
3.1.3	the doctrine of the disease, nosology, the principles of classification of diseases, the basic concepts of general nosology;
3.1.4	structural and functional foundations of diseases and pathological processes, causes, basic mechanisms of development and outcomes of pathological processes, dysfunctions of organs and systems;
3.1.5	characteristic changes in internal organs in the most important human diseases;
3.1.6	terms used in the course of pathological anatomy;
3.1.7	the main methods of laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the fact of the presence or absence of a disease;
3.1.8	the essence and basic patterns of general pathological processes;
	the concepts of etiology, pathogenesis, morphogenesis, pathomorphosis, the basics of the doctrine of nosology, the principles of classification of diseases;
3.1.10	structural and functional foundations of diseases and pathological processes, causes, basic mechanisms of development and outcomes of typical pathological processes, dysfunctions of organs and systems;
3.1.11	characteristic changes in internal organs in the most important human diseases;
3.1.12	the basis of pathology that develops under the influence of environmental factors.
3.2	Be able to:
3.2.1	3.2.1 use educational, scientific, popular science literature, the Internet to master the training program;

3.2.2	collect and analyze the patient's complaints, his medical history data; evaluate the results of the examination, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease;
3.2.3	work with magnifying equipment when conducting a microscopic examination of a histological preparation and give its morphological description;
3.2.4	on the basis of the descriptions received, to express an opinion on the nature of the pathological process and its clinical manifestations, the presumptive diagnosis or cause of death when solving situational problems, to formulate a pathoanatomical diagnosis;
3.2.5	evaluate morphofunctional, physiological states and pathological processes in the human body and substantiate the nature of the process and its manifestations.
3.3	Have skills of:
3.3.1	terms used in the course of pathological anatomy;
3.3.2	basic information transformation technologies: text, spreadsheet editors, Internet search;
3.3.3	skills of microscopy and analysis of histological preparations and electron micrographs;
3.3.4	skills in evaluating the results of post-mortem examinations in order to recognize a condition or establish the fact of the presence or absence of a disease;
3.3.5	the skill of comparing the morphological and clinical manifestations of diseases;
3.3.6	the skill of formulating a conclusion (diagnosis) in solving situational problems, evaluating results. histological study.

	4. STRUCTURE AND CONTENTS OF THE COURSE (MODULE)							
Class Code	Topics /Class type	Term / Academic	Academic hours	Competences	Literature	Interactive		
	Section 1. General pathological anatomy							
1.1	Methodical foundations of pathological anatomy. Reversible and irreversible damage to cells and tissues. Cell trophism, mechanisms for providing and disrupting cell trophism. Dystrophy. Causes, mechanisms of development, features of morphological manifestations, clinical significance. Irreversible damage to cells and tissues. Necrosis, apoptosis. Causes, mechanisms of development, differences, clinical significance. /Lec/	5	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4			
1.2	Methodical foundations of pathological anatomy. Reversible and irreversible damage to cells and tissues. Cell trophism, mechanisms for providing and disrupting cell trophism. Dystrophy. Causes, mechanisms of development, features of morphological manifestations, clinical significance /Pr/	5	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4			
1.3	Methodical foundations of pathological anatomy. Damage and death of cells and tissues. Dystrophy /Iw/	5	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4			
1.4	Irreversible damage to cells and tissues. Necrosis, apoptosis. Causes, mechanisms of development, differences, clinical significance. /Pr/	5	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4			
1.5	Damage and death of cells and tissues. Necrosis. apoptosis /Iw/	5	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4			

1.6	Circulatory disorders. Thrombosis. Embolism. Disseminated intravascular coagulation (DIC). Heart attack. Blood disorders (arterial, venous). Bleeding. Shock. /Lec/	5	2	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.7	Circulatory disorders. Thrombosis. Embolism. Disseminated intravascular coagulation (DIC). Heart attack /Pr/	5	4	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.8	Disorders of blood and lymph circulation. Thrombosis. Embolism. Disseminated intravascular coagulation. /Self-study/	5	3	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.9	Blood disorders (arterial, venous). Bleeding. Shock /pr/	5	4	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.10	Disorders of blood and lymph circulation. Heart attack. Violation of the blood supply. Shock / Self- study /	5	3	GPC -5.6 GPC -         L1.1           5.8 GPC -5.9         L1.2L2.1           GPC -5.10         E1 E2 E3 E4
1.11	Inflammation and reparation. General information about inflammation. Acute inflammation. outcomes of inflammation. Repair. Chronic inflammation. Granulomatous inflammation, specific granulomatous inflammation (tuberculosis, syphilis, leprosy, rhinoscleroma). granulomatous diseases. /Lec/	5	2	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.12	Inflammation and reparation. General information about inflammation. Acute inflammation. outcomes of inflammation. Repair. /Pr/	5	4	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.13	Inflammation and reparation. Acute inflammation. outcomes of inflammation /Self-study/	5	2	GPC -5.6 GPC -         L1.1           5.8 GPC -5.9         L1.2L2.1           GPC -5.10         E1 E2 E3 E4
1.14	Chronic inflammation. outcomes of inflammation. Repair. /Pr/	5	4	GPC -5.6 GPC -         L1.1           5.8 GPC -5.9         L1.2L2.1           GPC -5.10         E1 E2 E3 E4
1.15	Chronic inflammation. outcomes of inflammation. Repair /Self-study/	5	2	GPC -5.6 GPC -         L1.1           5.8 GPC -5.9         L1.2L2.1           GPC -5.10         E1 E2 E3 E4
1.16	Immunopathological processes. Hypersensitivity reactions. Autoimmune diseases. immunodeficiency states. Amyloidosis /Lec/	5	2	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4
1.17	Immunopathological processes. Hypersensitivity reactions. Autoimmune diseases. immunodeficiency states. Amyloidosis /Pr/	5	4	GPC -5.6 GPC -         L1.1           5.8 GPC -5.9         L1.2L2.1           GPC -5.10         E1 E2 E3 E4
1.18	Immunopathological processes. Hypersensitivity reactions. Autoimmune diseases. immunodeficiency states. Amyloidosis /Self-study/	5	2	GPC -5.6 GPC -       L1.1         5.8 GPC -5.9       L1.2L2.1         GPC -5.10       E1 E2 E3 E4

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1.19	Adaptation processes. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. /Lec/	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.20	Adaptation processes. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. /Pr/	5	4	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.21	Adaptation processes. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. /Self-study/	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.22	Tumors. General provisions. Tumors from the epithelium. mesenchymal tumors. The impact of the tumor on the body. /Lec/	5	2	GPC -5.6 GPC -       L1.         5.8 GPC -5.9       L1.2L         GPC -5.10       E1 E2 E	2.1
1.23	Tumors. General provisions. Tumors from the epithelium. /Pr/	5	4	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.24	Tumors. General provisions. Tumors from the epithelium. / Self-study /	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.25	Mesenchymal tumors. The impact of the tumor on the body. /Pr/	5	4	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.26	Mesenchymal tumors. The impact of the tumor on the body. / Self-study /	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.27	Pathology of the pre- and perinatal periods. /Pr/	5	4	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.28	Pathology of the pre- and perinatal periods. / Self-study /	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.29	Pathology associated with environmental factors. Iatrogenic. Medical disease. Alcohol intoxication. Addiction. Pneumoconiosis. /Pr/	5	4	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.30	The doctrine of diagnosis. Thanatology, medical statement of death. Autopsy /Lec/	5	2	GPC -5.6 GPC -         L1.           5.8 GPC -5.9         L1.2L           GPC -5.10         E1 E2 E	2.1
1.31	The doctrine of diagnosis. Thanatology, medical statement of death. Autopsy /Pr/	5	4	GPC -5.6 GPC -       L1.         5.8 GPC -5.9       L1.2L         GPC -5.10       E1 E2 E	2.1
	Раздел 2. Section 2. Special pathological anatomy			GPC -5.6 GPC - 5.8 GPC -5.9	
2.1	Diseases of the hematopoietic system. anemia. Polycythemia. Tumors of hematopoietic and lymphoid tissues. Leukemias, lymphomas, myelodysplastic diseases, chronic myeloproliferative diseases /Pr/	5	4	GPC -5.6 GPC - 5.8 GPC -5.9 L1.2L GPC -5.10 E1 E2 E	2.1

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2.2	Diseases of the hematopoietic system. anemia. Polycythemia. Tumors of hematopoietic and lymphoid tissues. Leukemias, lymphomas, myelodysplastic diseases, chronic myeloproliferative	5	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.2L2.1 E1 E2 E3 E4	
2.3	Infectious process. Tuberculosis Airborne infections. /Lec/	5	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.4	Infectious diseases. Tuberculosis. Viral and bacterial infections transmitted by airborne droplets. /Pr/	5	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.5	Pyogenic infections caused by gram- positive microflora. Sepsis. /Pr/	5	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.6	/Test./	5	0	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	Abstract
2.7	Diseases of the cardiovascular system Part I: atherosclerosis, coronary artery disease, hypertension. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.8	Diseases of the cardiovascular system Part I: atherosclerosis, coronary artery disease, hypertension. /Pr/	6	5	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.9	Diseases of the cardiovascular system Part I: atherosclerosis, coronary artery disease, hypertension. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.10	Diseases of the cardiovascular system. Diseases of the endocardium, myocardium and pericardium. Diseases of the arteries. Aneurysms. Diseases of the veins. Vascular tumors /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.11	Diseases of the cardiovascular system. Diseases of the endocardium, myocardium and pericardium. Diseases of the arteries. Aneurysms. Diseases of the veins. Vascular tumors /Pr/	6	5	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.12	Diseases of the cardiovascular system. Diseases of the endocardium, myocardium and pericardium. Diseases of the arteries. Aneurysms. Diseases of the veins. Vascular tumors /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.13	Diseases of the cardiovascular system Part III. Congenital heart defects. Diseases of the endocardium. Diseases of the myocardium. Diseases of the pericardium. Rheumatic diseases. Classification. Rheumatism. Nodular periarteritis. Rheumatoid arthritis. Systemic lupus erythematosus. Systemic scleroderma. Dermatomyositis. Sjögren's disease. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	

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2.14	Rheumatic diseases. Classification. Rheumatism. Nodular periarteritis. Rheumatoid arthritis. Systemic lupus erythematosus. Systemic scleroderma. Dermatomyositis. Sjögren's disease. Etiology, pathogenesis, morphological manifestations, complications, outcomes. /Pr/	6	5	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.15	Rheumatic diseases. Classification. Rheumatism. Nodular periarteritis. Rheumatoid arthritis. Systemic lupus erythematosus. Systemic scleroderma. Dermatomyositis. Sjögren's disease. Etiology, pathogenesis, morphological manifestations, complications, outcomes. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.16	Diseases of the lungs Part I. Pneumonia. congenital anomalies. Atelectasis. Vascular pathology of the lungs. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.17	Diseases of the lungs Part I. Pneumonia. congenital anomalies. Atelectasis. Vascular pathology of the lungs. /Pr/	6	5	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.18	Diseases of the lungs Part I. Pneumonia. congenital anomalies. Atelectasis. Vascular pathology of the lungs. /Pr/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.19	Diseases of the lungs. II part. Chronic diffuse lung diseases: chronic obstructive pulmonary disease, interstitial lung disease, lung cancer. /Lec/	6	0	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.20	Diseases of the lungs. II part. Chronic diffuse lung diseases: chronic obstructive pulmonary disease, interstitial lung disease, lung cancer. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.21	Diseases of the lungs. II part. Chronic diffuse lung diseases: chronic obstructive pulmonary disease, interstitial lung disease, lung cancer. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.22	Diseases of the gastrointestinal tract Part I. Diseases of the esophagus. Diseases of the stomach. Diseases of the exocrine pancreas. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.23	Diseases of the gastrointestinal tract Part I. Diseases of the esophagus. Diseases of the stomach. Diseases of the exocrine pancreas. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.24	Diseases of the gastrointestinal tract Part I. Diseases of the esophagus. Diseases of the stomach. Diseases of the exocrine pancreas. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.25	Diseases of the gastrointestinal tract II part. Intestinal diseases: ulcerative colitis, Crohn's disease and other colitis. colorectal cancer. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	

2.26	Diseases of the gastrointestinal tract II part. Intestinal diseases: ulcerative colitis, Crohn's disease and other colitis. colorectal cancer. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.27	Diseases of the gastrointestinal tract II part. Intestinal diseases: ulcerative colitis, Crohn's disease and other colitis. colorectal cancer. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.28	Diseases of the liver and biliary tract. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.29	Diseases of the liver and biliary tract. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.30	Diseases of the liver and biliary tract. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.31	Diseases of the kidneys. Glomerulopathies. Tubulopathy. OPN. HPN. Uremia. Diseases of the male reproductive system. /Lec/	6	2	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.32	Diseases of the kidneys. Glomerulopathies. Tubulopathy. OPN. HPN. Uremia. Diseases of the male reproductive system. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.33	Diseases of the kidneys. Glomerulopathies. Tubulopathy. OPN. HPN. Uremia. Diseases of the male reproductive system. / Self- study /	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.34	Tubulointerstitial kidney disease. Tumors of the kidneys and urinary tract. kidney failure /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.35	Tubulointerstitial kidney disease. Tumors of the kidneys and urinary tract. kidney failure /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.36	Diseases of the male reproductive system. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.37	Diseases of the male reproductive system. /Self-study/	6	3	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.38	Diseases of the female genital organs. Diseases of the mammary glands. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.39	Pathology of the placenta. Pathology of pregnancy. /Pr/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	
2.40	Pathology of the placenta. Pathology of pregnancy. /Self-study/	6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	

2.41	Diseases of the end Diseases of the pitu Diabetes. /Pr/		6	4	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4		
2.42	Testing /Pr/	6	4	GPC -5.6 GPC -		Т	Test	
2.43	/Control work/		6	0	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	Abstract	
2.44	/Exam/		6	27	GPC -5.6 GPC - 5.8 GPC -5.9 GPC -5.10	L1.1 L1.2L2.1 E1 E2 E3 E4	Theoretical questions, situational task, practical question (description of a macro- and/or	
			5. ASSESS	SMENT T	TOOLS			
		5.1. As	sessment tool	ls for mid	term assessment			
Presente	ed by a single documen	t						
			Assessment to	ols for dia	agnostic testing			
Presente	ed by a single documen	t						
		6. C			RESOURCES			
			6.1. Recomm		iterature			
				1.1. Core				Quantity
	Authors		Title		Publis	Publisher, year		
Л1.1	Cyplakov D. É., Šakirova A.Z., Silina E.V.	Macro- and Microscopic Diagnosis in Practical Classes in Pathological Anatomy: atlas				Moscow: GEOTAR -Media, 2023		
Л1.2		Pathological Anatomy : textbook:			GEOTA	Moscow: GEOTAR -Media, 2022, electronic resource		
			6.1.2. St	upplemen	tary			
	Authors			upplemen Fitle	tary	resource		Quantity
Л2.1	Authors Tsyplakov , Shakirova , Silina	Macro- and micro pathological anat	oscopic diagno	<b>Fitle</b> osis in prac	ctical classes in	resource Publis Moscow GEOTA	s <b>her, year</b> v: JR -Media, ectronic	Quantity 2
Л2.1	Tsyplakov,		oscopic diagno omy. Atlas: str	<b>Fitle</b> osis in prac	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	
л2.1 Э1	Tsyplakov , Shakirova , Silina pathological anatomy	pathological anat	oscopic diagno omy. Atlas: str <b>6.2. Inte</b> sphera.ru/jour	Fitle sis in pradudy guide udy guide <b>rnet reso</b> nals/arh.pa	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	
	Tsyplakov , Shakirova , Silina pathological anatomy pathological anatomy	pathological anat http://www.media http://www.freem	oscopic diagno omy. Atlas: str <b>6.2. Inte</b> sphera.ru/jour edicaljournals.	Fitle sis in pradudy guide udy guide <b>rnet reso</b> nals/arh.pa	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	
Э1 Э2 Э3	Tsyplakov , Shakirova , Silina pathological anatomy pathological anatomy pathological anatomy	pathological anat http://www.media http://www.freem http://www.mcpoi	oscopic diagno omy. Atlas: str <b>6.2. Inte</b> sphera.ru/jour edicaljournals.	Fitle sis in pradudy guide udy guide <b>rnet reso</b> nals/arh.pa	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	
31 32 33 34	Tsyplakov , Shakirova , Silina pathological anatomy pathological anatomy pathological anatomy pathological anatomy	pathological anat http://www.media http://www.freem http://www.mcpoi	oscopic diagno omy. Atlas: str <b>6.2. Inte</b> sphera.ru/jour edicaljournals.	Fitle sis in pradudy guide udy guide <b>rnet reso</b> nals/arh.pa	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	
Э1 Э2 Э3 Э4 6.3.1 Sc	Tsyplakov , Shakirova , Silina pathological anatomy pathological anatomy pathological anatomy	pathological anat http://www.media http://www.freem http://www.mcpon http://patolog.ru/	oscopic diagno omy. Atlas: str <b>6.2. Inte</b> sphera.ru/jour edicaljournals.	Fitle sis in pradudy guide udy guide <b>rnet reso</b> nals/arh.pa	ctical classes in	resource Publis Moscow GEOTA 2023, el	s <b>her, year</b> v: JR -Media, ectronic	

## 7. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE (MODULE)

7.1 Classrooms for conducting lecture-type classes, seminar-type classes (practical classes), group and individual consultations, current control and intermediate certification are equipped with: standard educational furniture; technical teaching aids used to present educational information - an interactive pathology class "Virchow", microscopes; posters, micro- and macropreparations, dummies.