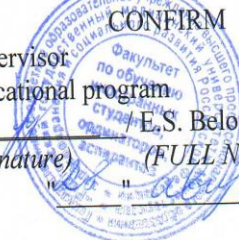


FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION  
OF HIGHER EDUCATION  
"ROSTOV STATE MEDICAL UNIVERSITY"  
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

*Faculty of Education of foreign students, residents and postgraduates*

CONFIRM  
Supervisor  
educational program  
E. S. Belousova /  
(signature) (FULL NAME.)  
" " " " 20\_20



DISCIPLINE WORKING PROGRAM  
PATHOLOGICAL ANATOMY, CLINICAL PATHOLOGICAL ANATOMY

Speciality 31.05.01 General medicine

Form of education full-time

Rostov-on-Don  
2020

## **I. GOALS AND OBJECTIVES OF MASTERING THE DISCIPLINE**

1.1. Targetmastering the discipline– students study the structural basis of diseases, their etiology and pathogenesis, diagnostic principles, which is necessary for mastering clinical disciplines and in the work of a doctor.

1.2. Objectives of studying the discipline:

- students study general pathological processes, the totality of which determines the morphological manifestations of a particular disease;
- **acquisition** knowledge about etiology, pathogenesis and morphology of diseases at different stages of their development (morphogenesis), structural basis of recovery, complications, outcomes and long-term consequences of diseases;
- mastering the morphology and mechanisms of adaptation and compensation processes of the body in response to the influence of pathogenic factors and changing environmental conditions;
- study of changes in diseases that arise both in connection with changing human living conditions and treatment (pathomorphosis), and as a result of various manipulations (pathology therapy);
- familiarization with the principles of organizing the pathological service, the methodological foundations of the morphological analysis of biopsy and surgical material and the clinical interpretation of the pathological report;
- developing skills in studying scientific literature and official statistical reviews.

## **II. REQUIREMENTS FOR THE RESULTS OF MASTERING THE DISCIPLINE**

The study of the discipline is aimed at developing the following competencies in accordance with the Federal State Educational Standard of Higher Education and the EP of Higher Education in this specialty:

2.1 Universal:

2.2 General professional: OPK-5. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems.

2.3 Professional: PC-1 Providing medical care to a patient in urgent or emergency forms.

PC-2 Examination of the patient

for the purpose of establishing a diagnosis.

## **I. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF EP VO**

3.1 Discipline refers to the basic part

#### IV. CONTENT AND STRUCTURE OF DISCIPLINE

Labor intensity of the discipline in 3\_\_7\_\_ hour \_\_252\_\_

##### 4.1. Sections of the discipline studied in \_\_5 – 6\_\_ semesters

No. section	Section name	Number of hours					
		Total	Contact Job				SRO
			L	WITH	ET C	LR	
Semester 5							
1	<b>General pathological anatomy 1</b>	48	14		16		18
2	<b>General pathological anatomy 2</b>	48	14		16		18
2	<b>Particular pathological anatomy 1</b>	12	4		4		4
Total for the semester:		108	32		36		40
Interim certification form (test)							
Semester 6							
2	<b>Particular pathological anatomy 1</b>	43	10		18		17
3	<b>Particular pathological anatomy 2</b>	65	18		24		21
Interim certification form (exam)		36					
Total for the semester:		144	28		42		38
<i>Total for the discipline:</i>		252	60		78		78

**SRO**- independent work of students

**L**- lectures

**WITH**- seminars(by discipline in accordance with the standard and RUP)

**LR** –laboratory work (in disciplines in accordance with the curriculum)

**ETC**– practical classes (in disciplines in accordance with the curriculum, they include clinical practical classes)

## 1.2. Contact work

### Lectures

No. section	No. lectures	Lecture topics	Number of hours
Semester 5			
1	1	<b>General pathological anatomy</b> Contents and algorithm for studying the subject “pathological anatomy”. Ethical and deontological norms in pathological anatomy. The main stages in the history of the development of pathological anatomy. Objectives, objects and methods of pathological studies. Rostov School of Pathologists.	2
1	2	Damage and death of cells and tissues: causes, mechanisms. Reverse possible damage (dystrophy). Morphology of disorders protein, lipid, carbohydrate and mineral metabolism. Intracellular accumulations, their significance and outcome	.2
1	3	Morphological characteristics protein stromal dystrophies. Hyalinosis. Amyloidosis. Stromal fatty dystrophies (atherosclerosis, cholesterosis)	2
1	4	Pathology of chromoproteins. Hemosiderosis, hemochromatosis. Violated exchange of nucleic acids. Pathological calcification.	2
1	5	Irreversible damage. General and local death. Necrosis. Apoptosis. Definition, causes and mechanisms of development, morphological characteristics, outcomes and significance for the body.	2
1	6	Water-electrolyte balance: characteristics, regulation, disorders. Edema. Circulatory disorders. Morphology of acute and chronic chelical heart failure. Bleeding. Hemorrhages.	2
1	7	Hemostasis (internal and outside external coagulation system). Staz Sludge. Thrombosis. Embolism. DIC - syndrome. Shock.	2
2	8	Inflammation. Essence and patterns of development. Morphology of the kinetics of inflammatory reactions. Classification. Acute inflammation. Exudative inflammation, its clinical and morphological characteristics.	2
2	9	Productive and chronic inflammation. Granulomatous inflammation. Granulomatous diseases. Specific granulomas (tuberculosis, syphilis, leprosy, rhinoscleroma).	2
2	10	Immunopathological processes. Classification and morphology of hypersensitivity reactions. Autoimmunization and autoimmune diseases. Immune deficiency syndromes (primary and secondary).	2

2	eleven	Adaptation processes. Repair. Cellular height and differentiation-moving cells Cellular matrix interactions. Wound healing. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. Dysplasia. Intraepithelial neoplasia.	2
2	12	Introduction to oncomorphology. Tumors: definition, nomenclature-ra, principles of classification. Characteristics of tumor growth. Molecular bas of carcinomagenesis. Metastasis. General and local effects on the body. Nomenclature and principles of classification. Metastasis. Tumors fro tissues derived from mesenchyme, neuroectoderm and melanin-producing tissue.	2
2	13	Classification, nomenclature, morphological features of dobrokbenign and malignant tumors, mesenchyme derivatives, nervous and melanin-forming tissue.	2
2	14	Pretumor (precancerous) percentEssas, their essence, morphological what characteristic. Epithelial tumors. Principles of classification. Clinical and morphological characteristics. Features of metastasis. The effect of a tumor the body. Cancer. Teratomas.	2
3	15	<b>Particular pathological anatomy.</b> Hematopoietic tumors hematopoietic tissue. Myeloproliferative diseases. Myelodysplastic syndromes.	2
3	16	Tumors of lymphoid tissue. Hodgkin's lymphoma. Non-Hodgki lymphomas.	2
Total hours per semester:			32
Semester 6			
3	17	Particular pathological anatomy. Atherosclerosis. Hypertensive disease (essential hypertension). Secondary arterial hypertension. Complications of atherosclerosis and hypertension. Cerebrovascular diseases.	2
3	18	Heart diseases. Cardiac ischemia. Classification. Etiology, pathogenesis, clinical and morphological characteristics, complications. Cardiomyopathies. Myocarditis.	2
3	19	Rheumatic diseases. Rheumatism (rheumatic fever). Etiology, pathogenesis, clinical and morphological characteristics, complications. Acquired and congenital heart defects. Infectious endocarditis.	2
3	20	Respiratory diseases: classification. Acute respiratory bacterial and viral infections upper respiratory tract. Acute pneumonia.	2
3	21	Chronic obstructive and restrictive pulmonary diseases. Chronic obstructive bronchitis, bronchiectasis, pulmonary emphysema. Bronchial asthma. Pneumoconiosis, fibrosing alveolitis. Lung cancer.	2
4	22	Diseases of the digestive system: classification. Diseases of the esophagus, stomach. Developmental defects. Esophagitis. Gastritis. Peptic ulcer (peptic ulcer). Esophageal carcinoma, stomach, their morphological diagnosis.	2

4	23	Intestinal diseases. Infectious enterocolitis (typhoid fever, dysentery, cholera, amoebiasis). Ischemic colitis. Non-specific ulcerative colitis. Crohn's disease. Appendicitis. Bowel cancer.	2
4	24	Diseases of the liver and biliary tract. Classification. Hepatocellular failure. Hepatitis. Cirrhosis of the liver. Liver damage caused by drugs and toxins. Alcoholic liver disease. Non-alcoholic liver steatosis. Liver tumors. Cholelithiasis. Cholecystitis. biliary tract.	2
4	25	Glomerular diseases. Acute glomerulonephritis. Chronic glomerulonephritis. Non-inflammatory glomerulopathies. Kidney diseases associated with damage to the tubules and interstitium. Necrotizing nephrosis (acute tubulonecrosis). Pyelonephritis. Urolithiasis. Kidney tumors.	2
4	26	Diseases of the endocrine glands. Diabetes. Diseases of the thyroid gland (thyroiditis, goiter, tumors). Tumors of the endocrine glands.	2
4	27	Inflammatory and dishormonal diseases of male and female genital organs. Precancerous processes and cancers of the cervix, endometrium, ovaries, testicles, mammary and prostate glands. Pathology of pregnancy.	2
4	28	Tuberculosis. Syphilis. Etiology. Pathogenesis. Clinical and morphological characteristics. Complications.	2
4	29	Infectious and parasitic diseases, general characteristics. HIV infection. Acquired immunodeficiency syndrome (AIDS). Opportunistic infections and AIDS. Sepsis. Septic endocarditis	2
4	thirty	Airborne bacterial infections: diphtheria, scarlet fever, meningococcal infection. Etiology. Pathogenesis. Clinical and morphological characteristics. Complications.	2
Total hours per semester:			thirty
<i>Total hours discipline:</i>			70

### Seminars, practical work

No. section	No. seminar, PR	Topics with seminars, practical work	Number of hours	Forms of current control
Semester 5				
1	1	<b>General pathological anatomy.</b> Contents and algorithm for studying the subject "pathological anatomy". Ethical and deontological norms in pathological anatomy. The main stages in the history of the development of pathological anatomy. Objectives, objects and methods of pathological studies. Excursion to the museum of the department. Demonstration of	2	Text test control with situational tasks. Interview, oral survey on macro- and micropreparations.

<b>No. section</b>	<b>No. seminar, PR</b>	<b>Topics with seminars, practical work</b>	<b>Number of hours</b>	<b>Forms of current control</b>
1	2	Pathology of accumulation (dystrophy). Intracellular accumulations Disturbances of protein, lipid, carbohydrate metabolism.	2	- // - // -
1	3	Vascular-stromal accumulations Mucoid and fibrinoid swelling. Hyaline changes Amyloidosis.	2	- // - // -
1	4	Disturbances in the metabolism of chromoproteins (endogenous pigments). Disorders of nucleic acid metabolism. Disorders of mineral metabolism. Pathological calcification. Stone formation.	2	- // - // -
1	5	Irreversible damage. Necrosis. Apoptosis	2	- // - // -
1	6	Impaired blood supply (plethora, anemia). Bleeding, hemorrhage, plasmorrhagia. Disorders of lymph circulation and tissue fluid content. Stasis. Sludge syndrome.	2	- // - // -
1	7	Thrombosis. Shock. DIC syndrome. Embolism. Ischemia.	2	- // - // -
1	8	Test and repetition lesson.	2	Milestone text test-control with situational tasks. Interview, oral survey on macro and micro preparations.
2	9	Inflammation, general characteristics. Acute inflammation. Exudative inflammation.	2	Text test control with situational tasks. Interview, oral survey on macro- and micropreparations.
2	10	Productive and chronic inflammation. Granulomatous inflammation. Granulomatous diseases. Specific granulomas (tuberculosis, syphilis, leprosy, rhinoscleroma).	2	- // - // -
2	eleven	Immunopathological processes. Classification and morphology of hypersensitivity reactions. Autoimmunization and autoimmune diseases. Immune deficiency syndromes (primary and secondary).	2	- // - // -
2	12	Repair. Wound healing. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. Dysplasia. Intraepithelial neoplasia.	2	- // - // -

No. section	No. seminar, PR	Topics with seminars, practical work	Number of hours	Forms of current control
2	13	Introduction to oncomorphology. Molecular basis of carcinogenesis. Basic properties of tumors. Nomenclature and principles of classification. Tumors from tissues derived from mesenchyme, neuroectoderm and melanin-producing tissue.	2	- // - // -
2	14	Epithelial tumors. Principles of classification. Clinical and morphological characteristics. Features of metastasis. The effect of a tumor on the body.	2	- // - // -
2	15	Test and repetition lesson	2	Milestone text test-control with situational tasks. Interview, oral survey on macro and micro preparations.
3	16	<b>Particular pathological anatomy.</b> Hematopoietic tumors hematopoietic tissue. Myeloproliferative diseases. Myelodysplastic syndromes.	2	Text test control with situational tasks. Interview, oral survey on macro- and micropreparations.
3	17	Tumors of lymphoid tissue. Hodgkin's lymphoma Non-Hodgkin's lymphomas.		- // - // -
3	18	Anemia. Thrombocytopathies.	2	- // - // -
Total hours per semester:			36	
<b>Semester 6</b>				
3	19	Opening. Atherosclerosis. Hypertensive disease (essential hypertension). Secondary arterial hypertension. Complications of atherosclerosis and hypertension.	3	Text test control with situational tasks. Interview, oral survey on macro- and micropreparations.
3	20	Heart diseases. Cardiac ischemia. Cardiomyopathies. Myocarditis.	3	- // - // -
3	21	Rheumatic diseases. Rheumatism. Acquired and congenital heart defects. Vasculitis.	3	- // - // -



<b>No. section</b>	<b>No. seminar, PR</b>	<b>Topics with seminars, practical work</b>	<b>Number of hours</b>	<b>Forms of current control</b>
3	22	Bacterial and viral airborne infections. Flu. Parainfluenza. Respiratory syncytial and adenoviral infections. Bacterial, mycotic and protozoal pneumonia.	3	- // - // -
3	23	Chronic obstructive and restrictive pulmonary diseases. Chronic obstructive bronchitis, bronchiectasis, pulmonary emphysema. Bronchial asthma. Interstitial diseases: pneumoconiosis, fibrosing alveolitis. Lung	3	- // - // -
3	24	Test and repetition exercise	3	Milestone text test-control with situational tasks. Interview, oral survey on macro- and micropreparations.
3	25	Diseases of the esophagus, stomach. Esophagitis. Gastritis. Peptic ulcer (peptic ulcer). Tumors of the esophagus and stomach	3	Test control with situational tasks. Interview, oral survey on macro- and micropreparations.
4	26	Intestinal diseases. Infectious enterocolitis (dysentery, typhoid fever, cholera). Ischemic colitis. Nonspecific ulcerative colitis. Crohn's disease. Appendicitis. Intestinal tumors.	3	Test control with situational tasks. Interview, oral survey on macro- and micropreparations.
4	27	Diseases of the liver and biliary system. Acute and chronic hepatitis. Liver cirrhosis. Liver tumors. Cholelithiasis. Pancreatitis, pancreatic tumors	3	- // - // -
4	28	Inflammatory and dyshormonal diseases of male and female genital organs. Precancerous processes and cancers of the cervix, endometrium, ovaries, testicles, mammary and prostate glands. Chorionepithelioma, seminoma. Pathology of pregnancy.	3	- // - // -
4	29	Diseases of the endocrine glands. Diabetes. Diseases of the thyroid gland (thyroiditis, goiter, tumors). Tumors of the endocrine	3	- // - // -
4	thirty	Kidney diseases. Glomerulonephritis. Nephrotic syndrome. Pyelonephritis. Urolithiasis. Acute and chronic renal failure. Kidney tumors	3	- // - // -
4	31	Tuberculosis. Syphilis.	3	- // - // -
4	32	Test and repetition lesson.	3	- // - // -

No. section	No. seminar, PR	Topics with seminars, practical work	Number of hours	Forms of current control
Total hours per semester:			42	
<i>Total by discipline hours:</i>			78	

### 1.3. Independent work of students

No. section	Type of independent work of students	Number of hours	Forms of current control
Semester 5			
1	Preparation for classes (PZ)	7	Interview Oral survey on macro- and micro-preparations.
	Design of albums for macro- and microspecimens (AM)	2	Checking albums.
	Solution of test tasks (RTZ)	2	Text test-control
	Situational problem solving (SPT)	2	Solving situational problems.
	Preparation for midterm control (MCC)	4	- // - // -
2	Preparation for classes (PZ)	7	Interview Oral survey on macro- and micro-
	Design of albums for macro- and microspecimens (AM)	2	Checking albums.
	Solution of test tasks (RTZ)	2	Text test-control
	Situational problem solving (SPT)	2	Solving situational problems.
	Preparation for midterm control (MCC)	4	- // - // -
3	Preparation for classes (PZ)	3	Interview Oral survey on macro- and micro-
	Design of albums for macro- and microspecimens (AM)	1	Checking albums.
	Solution of test tasks (RTZ)	1	Text test-control

No. section	Type of independent work of students	Number of hours	Forms of current control
	Situational problem solving (SPT)	1	Solving situational problems.
Total hours per semester:		40	
Semester 6			
3	Preparation for classes (PZ)	6	Interview Oral survey on macro- and micro-
	Design of albums for macro- and microspecimens (AM)	2	Checking albums.
	Solution of test tasks (RTZ)	2	Text test-control
	Situational problem solving (SPT)	2	Solving situational problems.
	Preparation for midterm control (MCC)	4	- // - // -
4	Preparation for classes (PZ)	8	Interview Oral survey on macro- and micro-
	Design of albums for macro- and microspecimens (AM)	2	Checking albums.
	Solution of test tasks (RTZ)	2	Text test-control
	Situational problem solving (SPT)	2	Solving situational problems.
	Preparation of abstracts to receive additional points (PR)	4	Checking abstracts
	Preparation for midterm control (MCC)	4	- // - // -
Total hours per semester:		38	
<i>Total by discipline hours:</i>		78	

## V. ASSESSMENT MATERIALS FOR CURRENT CONTROL AND INTERMEDIATE CERTIFICATION

(are an appendix to the work program)

## VI. EDUCATIONAL AND METHODOLOGICAL SUPPORT OF DISCIPLINE

### 6.1. Printed publications

1.Pathology: textbook: in 2 volumes / ed. M.A. Paltseva, V.S. Paukova. – M.: GOETAR-Media, 2010. – T. 1. – 512 p., T. 2. – 488 p.250 copies

2. Guide to the biopsy-sectional course: textbook / M.A. Paltsev V.L., Kovalenko, N.M. Anichkov. – M.: Medicine, 2002. - 256 p. 250 copies

3. Pathological anatomy. Tests and tasks: textbook. aid for students 3rd year of all faculties / ed. I.S. Derizhanova. – 3rd ed. - Rostov n/d: LaPO, 2009. – Part I. – 178 p. 245 copies

## 6.2. Internet resources

1. Pathological anatomy. In 2 volumes. T. 1. General pathology [Electronic resource]: textbook / ed. V.S. Paukova. – M.: GEOTAR-Media, 2015. – 720 p. – access from the EBS “Student Consultant”.

2. Pathological anatomy. In 2 vols. T. 2. Private pathology [Electronic resource]: textbook / ed. V.S. Paukova. – M.: GEOTAR-Media, 2015. – 528 p. – access from the EBS “Student Consultant”.

3. Pathological anatomy [Electronic resource]: national director. / ch. ed. M.A. Paltsev, L.V. Kaktursky, O.V. Zayrayants. – M.: GEOTAR – Media, 2014. – 1264 p. – Access from the EBS “Doctor Consultant”.

4. Pathological anatomy [Electronic resource]: atlas: textbook. manual for medical students. universities and postgraduate studies. education / O. V. Zairatyants [etc.]; edited by O. V. Zairatyantsa. – M.: GEOTAR-Media, 2014. – access from the EBS “Student Consultant”.

5. Private pathological anatomy [Electronic resource]: manual. to practice classes for treatment fak. : textbook allowance / under general ed. O.V. Zairatyantsa, L.B. Tarasova. – 2nd ed., revised. and additional – M.: GEOTAR-Media, 2013. – access from the EBS “Student Consultant”.

6. Pathological anatomy: a guide to practical training (general pathology) [Electronic resource]: interactive electronic educational publication / Kogan E.A., Bekhtereva I.A., Ponomarev A.B. - M.: GEOTAR-Media. 2017. Access mode: <http://www.path-anatomy.ru/book/06-COS-2404.html>

7. Studying pathological anatomy remotely [Electronic resource]: interactive electronic educational publication / Pavlov A.V., Kulikov S.V., Krainova E.A. – Yaroslavl State Medical University of the Ministry of Health of the Russian Federation, 2220. Access mode: <http://hist.yma.ac.ru/pathology.html>

	<b>ELECTRONIC EDUCATIONAL RESOURCES</b>	<b>Access to the resource</b>
1.	<b>Electronic library RostSMU.</b> – URL: <a href="http://109.195.230.156:9080/opac/">http://109.195.230.156:9080/opac/</a>	Access is not limited
2.	<b>Student Advisor:</b> EBS. – Moscow: LLC “IPUZ”. - URL: <a href="http://www.studmedlib.ru">http://www.studmedlib.ru</a>	Access is not limited
3.	<b>Doctor's consultant.</b> Electronic medical library: EBS. – Moscow: LLC GC “GEOTAR”. - URL: <a href="http://www.rosmedlib.ru">http://www.rosmedlib.ru</a>	Access is not limited
4.	<b>Scientific electronic library eLIBRARY.</b> - URL: <a href="http://elibrary.ru">http://elibrary.ru</a>	Open access
		Access from

5.	<b>National Electronic Library.</b> - URL: <a href="http://neb.rf/">http://neb.rf/</a>	library computers
6.	<b>Scopus/</b> Elsevier Inc., Reed Elsevier. – Philadelphia: Elsevier BV, PA. – URL: <a href="http://www.scopus.com/">http://www.scopus.com/</a> (National project)	Access is not limited
7.	<b>Web of Science/</b> Clarivate Analytics. - URL: <a href="http://apps.webofknowledge.com">http://apps.webofknowledge.com</a> (National project)	Access is not limited
8.	<b>Single window of access to information resources.</b> - URL: <a href="http://window.edu.ru/">http://window.edu.ru/</a>	Open access
9.	<b>Russian education. Federal educational portal.</b> - URL: <a href="http://www.edu.ru/index.php">http://www.edu.ru/index.php</a>	Open access
10.	<b>Online dictionaries.</b> - URL: <a href="http://dic.academic.ru/">http://dic.academic.ru/</a>	Open access
elev en.	<b>WordReference.com:</b> online language dictionaries. - URL: <a href="http://www.wordreference.com/enru/">http://www.wordreference.com/enru/</a>	Open access
12.	<b>Federal Electronic Medical Library of the Russian Ministry of Health.</b> - URL: <a href="http://www.femb.ru/feml/">http://www.femb.ru/feml/</a> , <a href="http://feml.scsmr.rssi.ru">http://feml.scsmr.rssi.ru</a>	Open access
13.	<b>Medline</b> (PubMed, USA). – URL: <a href="https://www.ncbi.nlm.nih.gov/pubmed/">https://www.ncbi.nlm.nih.gov/pubmed/</a>	Open access
14.	<b>Free Medical Journals.</b> -URL: <a href="http://freemedicaljournals.com">http://freemedicaljournals.com</a>	Open access
15.	<b>Free Medical Books.</b> -URL: <a href="http://www.freebooks4doctors.com/">http://www.freebooks4doctors.com/</a>	Open access
16.	<b>CyberLeninka:</b> scientific electron. beep. - URL: <a href="http://cyberleninka.ru/">http://cyberleninka.ru/</a>	Open access
17.	Archive of scientific journals / NEIKON. - URL: <a href="https://archive.neicon.ru/xmlui/">https://archive.neicon.ru/xmlui/</a>	Open access
18.	<b>Open access journals in Russian</b> /EIPub NEICON platform. – URL: <a href="https://elpub.ru/">https://elpub.ru/</a>	Open access
19.	<b>Medical Bulletin of the South of Russia.</b> - URL: <a href="https://www.medicalherald.ru/jour">https://www.medicalherald.ru/jour</a> or from the RostSMU website	Open access
20.	<b>Other</b> Open resources can be found at: <a href="http://rostgmu.ru">http://rostgmu.ru</a> →Library→Electronic catalogue→Open Internet resources→further by keyword...	

## 6.5. Guidelines for students on mastering the discipline

- **Planning and organizing the time needed to study the discipline.**

An important condition for successful mastery of the discipline is the creation of a system of proper organization of work, which makes it possible to distribute the educational load evenly in accordance with the schedule of the educational process. Drawing up a work plan can be of great help in this. Its presence will allow you to subordinate your free time to study purposes and work more successfully and efficiently. In the evening you should always distribute work for tomorrow. At the end of each day, it is advisable to summarize the work: carefully check whether everything was completed according to the plan, whether there were any deviations, and if there were, then for what reason they occurred. Self-control is a necessary condition for successful study, so if something is left undone, it is

necessary to find time to complete this part of the work. It is recommended to complete all tasks for practical classes, as well as tasks assigned for independent work, immediately after the corresponding topic of the lecture course, which contributes to better assimilation of the material, allows you to promptly identify and eliminate “gaps” in knowledge, systematize previously covered material, and proceed on its basis to mastering new knowledge and skills.

- **Preparation for lectures.**

Acquaintance with the discipline occurs already at the first lecture, where the student is required not only to pay attention, but also to independently prepare notes. When working with lecture notes, it is necessary to take into account the fact that some lectures provide answers to specific questions on the topic, while others only reveal the relationships between phenomena, helping the student understand the deep processes of development of the subject being studied, both in history and at the present time.

Lecture note-taking is a complex type of university classroom work that involves intense mental activity of the student. A note is useful when the most essential things are written down and done by the student himself. There is no need to try to write down the entire lecture verbatim. This kind of “note-taking” does more harm than good. It is advisable to first understand the main idea presented by the lecturer and then write it down. It is advisable to record on one page of the sheet or leave fields on which later, when working independently with notes, you can make additional notes and mark unclear places.

It is better to divide the lecture notes into points, observing the red line. This will be greatly facilitated by the lecture plan questions proposed to the teachers. You should pay attention to the accents and conclusions that the lecturer makes, marking the most important points in the lecture material with remarks “important”, “remember well”, etc., emphasizing terms and definitions using multi-colored markers or pens,

It is advisable to develop your own system of abbreviations, abbreviations and symbols. However, when further working with notes, it is better to replace the symbols with ordinary words for quick visual perception of the text.

When working on lecture notes, it is always necessary to use not only the textbook, but also the literature that the lecturer additionally recommended. It is this kind of serious, painstaking work with the lecture material that will allow you to deeply master the theoretical material.

- **Preparation for practical classes.**

The student must begin preparing for each practical lesson by familiarizing himself with the practical lesson plan, which reflects the content of the proposed topic. Careful thinking through and study of the plan's issues is based on studying the current lecture material, and then studying the required and additional literature recommended for this topic. All new concepts on the topic being studied must be memorized and included in a glossary, which should be kept from the very beginning of the course.

The result of such work should be manifested in the student’s ability to freely

answer theoretical questions of the workshop, his speech and participation in a collective discussion of issues on the topic being studied, the correct completion of practical assignments and tests.

In the process of preparing for practical classes, students need to pay special attention to independent study of the recommended literature. Despite the completeness of the lecture notes, it is impossible to present all the material in it due to the limit of classroom hours. Therefore, independent work with textbooks and manuals, scientific and reference literature, materials from periodicals and the Internet is the most effective method of obtaining additional knowledge, can significantly intensify the process of mastering information, contributes to a deeper assimilation of the material and the formation of students' own attitude to the problem.

- **Recommendations for working with literature.**

It is advisable to start working with literature by studying general works on the topic, as well as textbooks and teaching aids. Next, it is recommended to move on to the analysis of monographs and articles that consider individual aspects of the problems studied in the course, as well as official materials and unpublished documents (research papers, dissertations), which may contain the main issues of the problem being studied.

Work with sources should begin with introductory reading, i.e. view the text, highlighting its structural units. During introductory reading, bookmarks mark those pages that require more careful study.

Depending on the results of the introductory reading, a further method of working with the source is chosen. If solving the problem requires studying certain fragments of the text, then the selective reading method is used. If the book does not have a detailed table of contents, the student should pay attention to the subject and name indexes.

Selected fragments or the entire text (if it is entirely related to the topic) require thoughtful, leisurely reading with "mental elaboration" of the material. Such reading involves highlighting: 1) the main thing in the text; 2) main arguments; 3) conclusions. Particular attention should be paid to whether the thesis follows from the arguments or not.

It is also necessary to analyze which of the author's statements are problematic, hypothetical in nature and to grasp hidden issues.

It is clear that the ability to work with text in this way does not come immediately. The best way to learn to highlight the main points in a text, to grasp the problematic nature of statements, and to evaluate the author's position is comparative reading, during which the student gets acquainted with different opinions on the same issue, compares the weight and evidence of the arguments of the parties and draws a conclusion about the greatest persuasiveness of that one. or other position.

If in the literature there are different points of view on a particular issue due to the complexity of past events and legal phenomena, they cannot be rejected without understanding them. If there are discrepancies between the authors, it is necessary to find a rational grain in each of them, which will allow a deeper understanding of

the subject of study and a more critical assessment of the issues being studied. Getting acquainted with the special positions of the authors, you need to identify their similar judgments, arguments, conclusions, and then compare them with each other and apply the one that is more convincing.

The next stage of working with literary sources is the creation of notes that capture the main theses and arguments. You can make notes on separate sheets of paper, which can then be easily organized into individual topics of the course being studied. Another way is to keep thematic notebooks on one topic. It is advisable to take notes on large specialized works of a monographic nature in separate notebooks. Here it is important to remember that notes are written on one side of the sheet, with margins and sufficient line spacing for corrections and remarks (these rules are observed for ease of editing). If quotations are given in the notes, then an indication of the source (author, title, imprint, page number) must certainly be given. Subsequently, this information can be used when writing the text of an essay or other assignment.

Thus, when working with sources and literature, it is important to be able to:

- compare, compare, classify, group, systematize information in accordance with a specific educational task;
- summarize the information received, evaluate what you listened to and read;
- record the main content of messages; formulate, orally and in writing, the main idea of the message; draw up a plan, formulate theses;
- prepare and present detailed reports such as a report;
- work in different modes (individually, in pairs, in groups), interacting with each other;
- use abstracts and reference materials;
- control your actions and the actions of your comrades, objectively evaluate your actions;
- seek help, additional explanations from the teacher, other students.
- use linguistic or contextual guesses, dictionaries of various kinds, various kinds of hints, supports in the text (keywords, text structure, preliminary information, etc.);
- use periphrases, synonymous means, words that describe general concepts, explanations, examples, interpretations, “word creation” when speaking and writing;
- repeat or paraphrase the interlocutor’s remark to confirm understanding of his statement or question;
- seek help from your interlocutor (clarify the question, ask again, etc.);
- use facial expressions, gestures (in general and in cases where linguistic means are not enough to express certain communicative intentions).

- **Preparation for intermediate certification.**

When preparing for intermediate certification, it is advisable to:

- carefully study the list of questions and determine which sources contain the information necessary to answer them;
- carefully read the recommended literature;
- make short notes of answers (answer plans).



No. p/p	Name	Number of copies per educational program
1	Pathological anatomy. Part 1: method. developments for practice classes for II-III year students of all faculties. honey. universities / compiled by: I.S. Derizhanova, V.V. Voloshin, V.F. Golovitsky [and others]; Height. state honey. university, [department. pathological anatomy]. – 4th ed. – Rostov n/d: Publishing house RostGMU, 2013. – 109 p.	63 copies
2	Pathological anatomy. Part 2. Hematology. Cardiovascular pathology. Pulmonology: method. developer to practice classes for students / compiled by: I.S. Derizhanova, V.V. Voloshin, V.F. Golovitsky [and others]; Height. state honey. university, department pathol. anatomy. – IV ed. – Rostov n/d: Rostov State Medical University Publishing House, 2015. – 75 p. – 100 copies.	100 copies
3	Pathological anatomy. Tests and tasks: textbook. aid for students 3rd year of all faculties / ed. I.S. Derizhanova. – 3rd ed. - Rostov n/d: LaPO, 2009. – Part I. – 178 p.	245 copies
4	Tests and programmed control tasks in private pathological anatomy for 3rd year students of all faculties /edited by I.S. Derizhanova. – 2nd ed. - Rostov n/a: From – to Rost State Medical University, 2003. – 279 p.	200 copies

## VII. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE

### 7.1. Educational and laboratory equipment.

No. p/p	Name of special* premises and premises for independent work	Equipment of special rooms and rooms for independent work
1	344022, Rostov region, Rostov-on-Don, lane. Nakhichevan, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 2nd floor) Lecture hall Classroom for conducting lecture-type classes in the discipline “Pathological anatomy, clinical pathological anatomy”.	Auditorium for 150 seats, equipped with a screen, whiteboard, stands for tables, specialized educational furniture, multimedia presentation complex
2	344022, Rostov region, Rostov-on-Don, lane. Nakhichevansky, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 3rd floor) No. 1 Classroom for conducting seminar-practical classes, group and individual consultations, ongoing monitoring and intermediate certification in the discipline “Pathological anatomy,	Tables with lights, 20 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.

	clinical pathological anatomy.”	
<b>3</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevansky, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 3rd floor) No. 2 Classroom for conducting seminar-practical classes, group and individual consultations, ongoing monitoring and intermediate certification in the discipline “Pathological anatomy, clinical pathological anatomy.”	Tables with lights, 15 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.
<b>4</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevansky, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 3rd floor) No. 3 Classroom for conducting seminar-practical classes, group and individual consultations, ongoing monitoring and intermediate certification in the discipline “Pathological anatomy, clinical pathological anatomy.”	Tables with lights, 15 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.
<b>5</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevan, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 3rd floor) No. 4 Classroom for conducting seminar-practical classes, group and individual consultations, ongoing monitoring and intermediate certification in the discipline “Pathological anatomy, clinical pathological anatomy.”	Tables with lights, 15 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.
<b>6</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevan, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 2nd floor) Fundamental Museum of the Department of Pathological Anatomy. Auditorium for holding cathedral conferences and excursions. Place for storing macro and micro preparations.	20 cabinets for storing macropreparations, 8 cabinets for storing microspecimens, 2800 macropreparations, 20000 microspecimens, table with light and 30 chairs
<b>7</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevan, 38/57-59/212-214 (Building of Pathanatomy, Histology and Operative Surgery Liter N, 1st floor). Sectional hall. Place for practical training, student participation in autopsies	4 sectional tables, tool sets, dressing gowns. aprons for dissectors, bactericidal lamps.

<b>8</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevansky, 38 Letter B-A (Diagnostic and treatment building, 8th floor). Morphological department Laboratory of the pathological department of the Rostov State Medical University clinic. Premises for practical classes, group and individual consultations, ongoing monitoring and intermediate certifications specializing in Pathological Anatomy.	Laboratory furniture and utensils. Slides and coverslips, reagents and serums for the preparation of preparations for cytobiological, histological, cyto- and histochemical, immunocyto- and immunohistochemical research. Microwave processor for histological tissue processing LOGOS Processor for microwave histological express tissue processing KOS Cryostat-microtome Modular station for embedding tissues in paraffin Mechanical rotary microtome LeicaRM 2125 Mechanical rotary microtome CUT 4062 Biological microscope LeicaDM 1000 – 2 pcs. Biological microscope LeicaDM 1000 with photo attachment – 1 pc. Complete computer + printer - 6 pcs. Electric water distiller ADEA - 25
<b>9</b>	344029 Rostov-on-Don, 1st Horse Army st. 33 State Budgetary Institution RO "Regional Clinical Hospital No. 2", pathology department, 3rd floor, room 301, conference room. Classroom for conducting lecture-type classes in the discipline "Pathological anatomy, clinical pathological anatomy."	Tables and chairs for 60 seats. Multimedia equipment for lecture presentations, screen.
<b>10</b>	344029 Rostov-on-Don, 1st Horse Army st. 33 State Budgetary Institution RO "Regional Clinical Hospital No. 2", pathology department, 3rd floor, room No. 311. Classroom for conducting seminar-practical classes, group and individual consultations, ongoing monitoring and intermediate certification in the discipline "Pathological anatomy, clinical pathological anatomy."	Tables with lights, 15 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.
<b>eleven</b>	344029 Rostov-on-Don, 1st Horse Army St. 33 State Budgetary Institution RO "Regional Clinical Hospital No. 2", pathology department, 3rd floor, room No. 321, Classroom for conducting seminar-practical classes, group and individual consultations, current control and intermediate certification in the discipline "Pathological anatomy, clinical pathological anatomy".	Tables with lights, 15 chairs, microscopes (10), blackboard, standard sets of tables, macro and micro preparations.
<b>12</b>	344029 Rostov-on-Don, 1st Horse Army st. 33 State Budgetary Institution RO "Regional Clinical Hospital No. 2", pathology department, 1st floor, room No. 3. Sectional hall. A place for practical training and student participation in autopsies.	3 sectional tables, tool sets, dressing gowns. aprons for dissectors, bactericidal lamps.

<b>13</b>	344022, Rostov region, Rostov-on-Don, lane. Nakhichevansky, 38/57-59/212-214 (No. 41, Liter A-Z, 2nd floor, 4th floor, Liter B-A, 6th floor) 344022, Rostov region, Rostov-on-Don, st. Adygei/Pushkinskaya 12/191. Special rooms for independent work - library reading rooms, an auditorium of the Department of Physics, the Department of Automation and Monitoring of the Quality of Education.	Computer equipment with Internet connection and access to EIOS Rost GMU

## 7.2. Technical and electronic means.

### Software discipline

1. Office Standard, license No. 66869707 (agreement No. 70-A/2016.87278 dated May 24, 2016).
2. System Center Configuration Manager Client ML, System Center Standard, license No. 66085892 (agreement No. 307-A/2015.463532 dated 12/07/2015);
3. Windows, license No. 66869717 (agreement No. 70-A/2016.87278 dated May 24, 2016).
4. Office Standard, license No. 65121548 (agreement No. 96-A/2015.148452 dated 05/08/2016);
5. Windows Server - Device CAL, Windows Server – Standard, license No. 65553756 (agreement No. RGMU1292 dated August 24, 2015);
6. Windows, license No. 65553761 (agreement No. RGMU1292 dated August 24, 2015);
7. Windows Server Datacenter - 2 Proc, license No. 65952221 (agreement No. 13466/RND1743/RGMU1679 dated 10/28/2015);
8. Kaspersky Total Security 500-999 Node 1 year Educational Renewal License (Agreement No. 358-A/2017.460243 dated November 1, 2017).
9. Provision of communication services (Internet): "Rostelecom" - agreement No. RGMU7628 dated December 22, 2017; "ER-Telecom Holding" - agreement RGMU7611 dated December 22, 2017; "MTS" - agreement RGMU7612 dated December 22, 2017.