

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*

Supervisor  
educational program

(signature)

CONFIRM

E.S. Belousova /  
(FULL NAME.)

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**DISCIPLINE WORKING PROGRAM**

**FACULTY THERAPY**

Speciality 31.05.01 General medicine

Form of education full-time

Rostov-on-Don  
2023

## I. GOALS AND OBJECTIVES OF MASTERING THE DISCIPLINE

**Goals** mastering the discipline: in-depth training in clinical methods examination of a therapeutic patient, modern laboratory and instrumental examination methods, recognition of various symptoms of diseases of internal organs, understanding their etiology and pathogenesis, constructing a syndromic diagnosis, assessing the significance of symptoms and syndromes in the diagnosis of the most important diseases with an analysis of the principles of emergency therapy, mastering the basic principles of medical ethics and deontology, formation of the foundations of clinical thinking, a holistic understanding of the diagnostic process, training in practical skills for interpreting the results of clinical, laboratory, and instrumental studies.

**Objectives of studying the discipline:** upon completion of studying faculty therapy, the student should know:

- etiology, pathogenesis, clinical manifestations, classifications of the most common diseases of internal organs in adults,
- methods of preventing diseases of internal organs in adults,
- methods of early diagnosis and treatment of the most common diseases of internal organs in adults,
- clinical picture of emergency conditions for diseases of internal organs in adults and provision of emergency care for them,
- methods of the most important modern laboratory and instrumental studies of diseases of internal organs in adults,
- values of basic laboratory and instrumental indicators of adults (general analysis of blood, urine, sputum, gastric juice, feces, blood pressure measurement, ECG, EchoCG, radiography, computed tomography);

the student must be able to:

- communicate with patients taking into account knowledge of the principles of medical ethics and deontology,
- conduct an objective examination of adult patients with diseases of internal organs,
  
- identify clinical syndromes of diseases of internal organs in adults,
- formulate and justify preliminary and clinical diagnoses of diseases of internal organs in adults,
- prescribe and justify a plan for examination and treatment of patients with diseases of internal organs,
- interpret the results of laboratory and instrumental studies of patients with diseases of internal organs,
- carry out syndromic diagnosis of emergency conditions and provide emergency care for them,
- determine the degree of risk of developing diseases of internal organs and the prognosis of complications,
- draw up a plan for dispensary and preventive measures for diseases of internal organs.

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

The process of studying 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. Professional: PC-2; PC-3;

### III. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF EP VO

2.1. The academic discipline "Faculty Therapy" constitutes the basic part of the professional disciplines for training a young therapy specialist.

2.2. To study this academic discipline, you need knowledge, skills and knowledge formed by the following previous disciplines:

- *Biochemistry*
- *Normal physiology*
- *Anatomy*
- *Pathophysiology*
- *Propaedeutics of internal diseases, radiation diagnostics*
- *Pharmacology*

2.3. List of subsequent academic disciplines that require knowledge, skills and knowledge formed by this academic discipline:

- *Hospital therapy*
- *Palliative care*
- *Outpatient therapy*
- *Clinical pharmacology*

**IV. CONTENT AND STRUCTURE OF DISCIPLINE Labor  
intensity of the discipline in 3\_7\_ hours \_252\_**

**4.1. Sections of the discipline studied in 7-8 semesters**

No. chapter A	Name section	Number of hours						SRO*
		Total	Contact Job					
			L	WITH	ETC	LR		
Semester 7								
1	Introduction	2	-	-	-	-	-	
2	Organ diseases breathing	28	6	-	6	-	20	
3	Heart diseases vascular systems	112	16	-	64	-	32	
		144	22	-	70	-	52	
	Form intermediate certification	-	Test					
Semester 8								
4	Kidney diseases	18	2	-	4	-	8	
5	Organ diseases digestion	28	4	-	16	-	8	
6	Hematological diseases	20	4	-	8	-	8	
7	Joint diseases	10	2	-	8	-	-	
		72	12		36		24	
	Form intermediate certification	36	Exam					
	<i>Total per semester</i>	108						
	<i>Total by discipline:</i>	252	34	0	106	0	76	

## 4.2. Contact work

### Lectures

Section no.	Lecture no.	Lecture topics	Qty hours
Semester7			
1	1	<p><b>Pneumonia.</b> Definition. Etiology, pathogenesis, clinical and morphological characteristics (parenchymal, interstitial); nature of the course (acute, protracted). Modern classification. Main clinical syndromes. Determination of severity, possible complications. Treatment: principles of antibacterial therapy and main groups of antibiotics depending on the etiology of pneumonia. Symptomatic therapy. Criteria for recovery, disease outcomes, prognosis. Clinical examination. Primary and secondary prevention. The procedure for providing medical care to the adult population in the field of "therapy" Order of the Ministry of Health of Russia dated November 15, 2012 No. 923n. Standard of specialized medical care for patients with moderate pneumonia dated December 29, 2012 No. 1658n.</p>	2
1	2	<p><b>Bronchial asthma.</b> Prevalence. Definition. Etiology and pathogenesis. The role of exo- and endogenous, occupational factors, focal infection of the upper respiratory tract. Classification. Mechanisms of reversible bronchial obstruction. Diagnostic criteria for asthma. Degree of severity of the flow. The importance of examining respiratory function. Basic principles of asthma treatment. Treatment during exacerbation and remission. Complications. Asthmatic status, diagnostic criteria. Emergency care for asthma attacks and status. The concept of "rebound" syndrome. Clinical examination of patients. Primary and secondary prevention of asthma. "Asthmatic School."</p>	2
		<p><b>COPD (chronic obstructive pulmonary disease).</b> Definition, etiology, pathogenesis. The importance of risk factors and occupational hazards, internal factors (-1-antitrypsin). Classification of COPD. Main clinical syndromes. Clinical picture depending on the stage of the process, course and complications. Treatment of COPD. Primary and secondary prevention.</p>	2
2	3	<p><b>Atherosclerosis.</b> Social significance of the problem. Epidemiology, pathogenesis, risk factors. The concept of dyslipoproteinemia and its types, clinical manifestations. Laboratory and instrumental diagnostics. Determination of the risk group (SCORE system). Primary and secondary prevention of atherosclerosis, principles of treatment (main groups of lipid-lowering drugs). <b>Cardiac ischemia.</b> The concept of IHD: medical and social significance, epidemiology, pathogenesis, risk factors, classification. <b>Angina pectoris.</b> Pathogenesis of the syndrome, clinical variants. The concept of stable and unstable angina (options). Diagnosis of angina pectoris. The role of stress and pharmacological tests, invasive research methods (coronary angiography and transesophageal stimulation). Principles of treatment of angina pectoris: non-drug methods. Main groups of antianginal drugs. Relief and prevention of angina attacks. Other forms of ischemic heart disease (post-infarction cardiosclerosis, circulatory failure, rhythm disturbances, sudden circulatory arrest, silent myocardial ischemia). Diagnostics, Role of Holter monitoring. Principles of treatment. Primary and secondary prevention of coronary artery disease. The procedure for providing medical care to patients with cardiovascular</p>	2

		vascular diseases. Order of the Ministry of Health of Russia dated November 15, 2012 No. 918n	
2	4	<b>Acute coronary syndrome.</b> Concept, options. Physician tactics when detecting ACS. <b>Myocardial infarction.</b> Epidemiology, pathogenesis, risk factors. Periods of myocardial infarction, Clinical variants of the onset of the disease. Clinical picture during different periods of the disease. Diagnostics. Changes in ECG, blood picture and biochemical parameters. Atypical forms of myocardial infarction. Complications: cardiogenic shock (reflex, arrhythmic, true), rhythm and conduction disturbances, heart failure, cardiac tamponade, aneurysms, post-infarction syndrome, thromboembolism). Treatment. The importance of early hospitalization, emergency care at the prehospital stage. Pain relief, combating cardiogenic shock, rhythm disturbances, principles of anticoagulant and thrombolytic therapy. Percutaneous coronary interventions and coronary artery bypass grafting.	4
2	5	<b>Hypertonic disease.</b> Epidemiology. The role of pressor and depressor body systems in the onset and progression of the disease. The concept of risk factors. Classification. Clinical picture of various stages of the disease. Concept of target organs and associated clinical conditions. Risk stratification. Complications of hypertension. Principles of treatment of hypertension. The role of non-drug methods, the main groups of antihypertensive drugs, their differentiated use. Primary and secondary prevention of hypertension. Hypertensive crises, concept, classification, emergency therapy. Standard of primary health care for primary arterial hypertension (hypertension) dated 10/09/2012 No. 708n	4
2	6	<b>Purchased vices hearts. Mitral vices.</b> Failure mitral valve. Etiology, hemodynamic features, clinical picture, stages of progression. The concept of relative deficiency. Diagnosis, prognosis, treatment, indications for surgery. Mitral stenosis. Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery. Combined mitral valve disease. <b>Aortic defects.</b> Aortic insufficiency valve Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery. Aortic stenosis. Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery.  Combined heart defects. Diagnosis, identification of the predominance of stenosis or insufficiency, prognosis, treatment, indication for surgical intervention. Mitral valve prolapse, causes, hemodynamics, diagnosis.	2
2	7	<b>Non-coronary myocardial diseases.</b> <b>Myocarditis.</b> Etiology, pathogenesis, classification, clinical options, diagnostic criteria. Principles of treatment of myocarditis. Main complications. Prognosis and outcomes.	2
2	8	<b>Chronic heart failure (CHF).</b> Causes of development, pathogenesis, diagnostic criteria, classification of treatment (regimen, diet, drug therapy for CHF: main, additional and auxiliary drugs). Medical examination and prevention. Standard of specialized medical care for heart failure dated December 24, 2012 No. 1554n.	2
		<b>Total for the semester 22 hours</b>	
Semester8			
3	1	<b>Glomerulonephritis.</b> Definition of the concept "glomerulonephritis". Modern	2

		<p>idea of etiology and pathogenesis. Classifications. Main clinical syndromes. Laboratory and instrumental criteria for the active process. Flow options. Outcomes. Complications.</p> <p>Treatment: regimen, diet, indications for the use of corticosteroids and cytostatics. The concept of pulse therapy. Primary and secondary prevention glomerulonephritis. Emergency care for cerebral edema, pulmonary edema, acute renal failure, etc. <b>Chronic renal failure.</b> Definition of the concept of "chronic renal failure" and "chronic kidney disease". Modern understanding of etiology and pathogenesis, classification. Laboratory and instrumental criteria for diagnosis. Treatment: regimen, diet, indications for the use of extracorporeal methods (hemodialysis, peritoneal dialysis, indication for kidney transplantation. Primary and secondary prevention of chronic renal failure. Standard of specialized medical care for disorders developing as a result of renal tubular dysfunction (tubulopathy) dated November 9, 2012 No. 762n.</p>	
4	2	<p><b>Chronic gastritis.</b> Definition. Prevalence. Etiology. Modern classification of gastritis. Pathogenesis of gastritis associated with Helicobacter pylori: antral and diffuse. Its role in the development of peptic ulcer disease. Pathogenesis of autoimmune gastritis. Features of secretion and motility. Clinical picture, course. Main clinical syndromes. Diagnostic criteria (endoscopic and morphological). Treatment depending on the etiological factor, the state of the secret activity of the stomach, on the stage (exacerbation, remission): diet, drug therapy. Forecast. Primary and secondary prevention. Clinical examination.</p> <p><b>Peptic ulcer of the stomach and duodenum.</b> Definition, Epidemiology. Etiology. The role of Helicobacter pylori in the development of peptic ulcer disease. Pathogenesis. The concept of factors of aggression (acid-peptic) and protection (mucosal-bicarbonate barrier). Main clinical syndromes. The clinical picture depends on the location of the ulcer, the characteristics of the secretory and motor functions of the stomach. Methods for studying the secretory activity of the stomach; concept of basal and peak acid production. Features of the course of peptic ulcer of the duodenum and body of the stomach, pyloric canal, antrum of the stomach, postbulbar ulcers. Primary ulcerative form of stomach cancer. Complications: perforation, bleeding, penetration, stenosis of the pylorus, or duodenum, perivisceritis. Tactics for managing patients with peptic ulcer of the duodenum and body of the stomach. Indications for planned surgical treatment. Treatment: Diet regimen and features. Anti-Helicobacter therapy. Antacids, anticholinergics, H blockers<sub>2</sub>receptors, H+K+ blockers - ATPases, gastrin receptor antagonists, cytoprotectors (synthetic prostaglandins), prokinetics. Course treatment "on demand". Prevention. Dispensary observation.</p>	2
4	3	<p><b>Chronic colitis: nonspecific ulcerative colitis, Crohn's disease.</b> Etiology, pathogenesis, prevalence of diseases. Intestinal and extraintestinal clinical manifestations. Flow options. Complications. X-ray and endoscopic diagnostic studies. The importance of morphological examination to confirm the diagnosis. Functional bowel diseases: definition, classification, clinical picture, differential diagnosis with inflammatory bowel diseases.</p>	2
5	4	<p><b>Anemia.</b> Definition of the concept. Modern classification of anemia. Main clinical syndromes (circulatory-hypoxemic, sideropenic, funicular myelosis, hematological). Laboratory criteria for diagnosis. The concept of physiological anemia in pregnant women.</p>	2

		Iron-deficiency anemia. Metabolism of iron in the body, stages of development of iron deficiency. Sideoachrestic states. The main causes of iron deficiency in the body. Treatment. The main groups of iron-containing drugs, tactics of their use, monitoring the effectiveness of therapy. Prevention of iron deficiency anemia.	
5	5	<b>Acute and chronic leukemia.</b> Acute and chronic leukemia. Classification leukemia Clinical picture. Laboratory morphological diagnostics. Main clinical syndromes. Course and complications. Principles of therapy and its stages (induction and consolidation of remission, prevention of neuroleukemia, treatment during remission). Therapy of certain variants of the disease. Complications of cytostatic therapy. Prognosis and survival. Clinical examination and rehabilitation of patients with acute leukemia.	2
6	6	<b>Deforming osteoarthritis, rheumatoid arthritis, gout.</b> Etiology, pathogenesis, classification, features of the clinical picture, diagnostic criteria. Modern approaches to treatment.Standard of specialized medical care for primary coxarthrosis; rheumatoid arthritis, gout with damage to the hip joints; osteonecrosis and cysts of the femoral head dated December 20, 2012 No. 1132n.	2
		<b>Total hours for the semester: 12</b>	
		<b>Total discipline hours: 34</b>	



## Seminars, practical work

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
Semester 7				
1	1	<p><b>Pneumonia.</b> Definition. Etiology, pathogenesis, clinical morphological characteristics (parenchymal, interstitial); nature of the course (acute, protracted). Modern classification. Main clinical syndromes. Determination of severity, possible complications. Treatment: principles antibacterial therapy and the main groups of antibiotics depending on the etiology of pneumonia. Symptomatic therapy. Criteria for recovery, disease outcomes, prognosis. Clinical examination. Primary and secondary prevention. The procedure for providing medical care to the adult population in the field of "therapy" Order of the Ministry of Health of Russia dated November 15, 2012 No. 923n. Standard of specialized medical care for patients with moderate pneumonia dated December 29, 2012 No. 1658n.</p>	2	Interview, survey, testing
1	2	<p><b>Bronchial asthma.</b> Prevalence. Definition. Etiology and pathogenesis. The role of exo- and endogenous, occupational factors, focal infection of the upper respiratory tract. Classification. Mechanisms of reversible bronchial obstruction. Diagnostic criteria for asthma. Degree of severity of the flow. The importance of examining respiratory function. Basic principles of asthma treatment. Treatment during exacerbation and remission. Complications. Asthmatic status, diagnostic criteria. Emergency care for asthma attacks and status. The concept of "rebound" syndrome. Clinical examination of patients. Primary and secondary prevention of asthma. "Asthmatic School."</p>	2	Interview, survey, testing
1	3	<p><b>COPD (chronic obstructive pulmonary disease).</b> Definition, etiology, pathogenesis. The importance of risk factors and occupational hazards, internal factors (-1-antitrypsin). Classification of COPD. Main clinical syndromes. Clinical picture depending on the stage of the process, course and complications. Treatment of COPD. Primary and secondary prevention.</p>	2	Interview, survey, testing

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
2	4.5	<p><b>Atherosclerosis.</b>Social significance of the problem. Epidemiology, pathogenesis, risk factors. The concept of dyslipoproteinemia and its types, clinical manifestations. Laboratory and instrumental diagnostics. Determination of the risk group (SCORE system). Primary and secondary prevention of atherosclerosis, principles of treatment (main groups of lipid-lowering drugs).</p> <p><b>Cardiac ischemia.</b>The concept of IHD: medical and social significance, epidemiology, pathogenesis, risk factors, classification. <b>Angina pectoris.</b> Pathogenesis of the syndrome, clinical variants. Concept of stable and unstable angina (variants). Diagnosis of angina pectoris. The role of stress and pharmacological tests, invasive research methods (coronary angiography and transesophageal stimulation). Principles of treatment of angina pectoris: non-drug methods. Main groups of antianginal drugs. Relief and prevention of angina attacks. Other forms of ischemic heart disease (post-infarction cardiosclerosis, circulatory failure, rhythm disturbances, sudden circulatory arrest, silent myocardial ischemia). Diagnostics, Role of Holter monitoring. Principles of treatment. Primary and secondary prevention of coronary artery disease. Standard of specialized medical care for heart failure dated December 24, 2012 No. 1554n.</p>	8	Interview, survey, testing
2	5.6	<p><b>Acute coronary syndrome.</b> Concept, options. Physician tactics when detecting ACS.<b>Myocardial infarction.</b> Epidemiology, pathogenesis, risk factors. Periods of myocardial infarction, Clinical variants of the onset of the disease. Clinical picture during different periods of the disease. Diagnostics. Changes in ECG, blood picture and biochemical parameters. Atypical forms of myocardial infarction. Complications: cardiogenic shock (reflex, arrhythmic, true), rhythm and conduction disturbances, heart failure, cardiac tamponade, aneurysms, post-infarction syndrome, thromboembolism). Treatment. The importance of early hospitalization, emergency care at the prehospital stage. Pain relief, combating cardiogenic shock, rhythm disturbances, principles of anticoagulant and thrombolytic therapy. Percutaneous coronary interventions and coronary artery bypass grafting.</p>	8	Interview, survey, testing
2	7	<p><b>Hypertonic disease.</b>Epidemiology. The role of pressor and depressor systems of the body in the occurrence and progression of the disease. The concept of risk factors. Classification. Clinical picture of various stages of the disease. Concept of target organs and associated clinical conditions. Risk stratification. Complications of hypertension. Principles of treatment of hypertension. The role of non-drug methods, the main groups of antihypertensive drugs, their differentiated use. Primary and secondary prevention of hypertension. Hypertensive crises, concept, classification, emergency therapy.</p>	8	Interview, survey, testing

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
2	8	<p><b>Acute rheumatic fever.</b> Etiology (role of --hemolytic streptococcus and hereditary predisposition). Pathogenesis of ARF, the concept of molecular mimicry. Classification. Diagnosis criteria. Main clinical syndromes: arthritis, carditis, chorea, skin manifestations. Clinical and laboratory criteria for the activity of the process, features of the clinical picture. Features of the modern course of ARF. Treatment: antibacterial therapy, non-steroidal anti-inflammatory drugs, indications for corticosteroids. Primary and secondary prevention of ARF.</p>	4	Interview, survey, testing
2	9, 10	<p><b>Acquired heart defects. Mitral defects.</b> Mitral valve insufficiency. Etiology, hemodynamic features, clinical picture, stages of progression. The concept of relative deficiency. Diagnosis, prognosis, treatment, indications for surgery.</p> <p>Mitral stenosis. Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery. Combined mitral valve disease.</p> <p><b>Aortic defects.</b> Aortic valve insufficiency. Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery.</p> <p>Aortic stenosis. Etiology, hemodynamic features, clinical picture, stages of progression. Diagnosis, prognosis, treatment, indications for surgery.</p> <p>Combined heart defects. Diagnosis, identification of the predominance of stenosis or insufficiency, prognosis, treatment, indication for surgical intervention. Mitral valve prolapse, causes, hemodynamics, diagnosis.</p>	8	Interview, survey, testing
2	10, eleven	<p><b>Arrhythmias and heart block.</b> Classification, pathogenetic mechanisms, features of clinical manifestations, modern diagnostic methods, emergency care algorithms for various types of heart rhythm disturbances, prevention, indications for surgical treatment methods</p>	10	Interview, survey, testing

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
2	12	<p><b>Non-coronary myocardial diseases. <i>Cardiomyopathies</i>.</b>Concept, classification. Idiopathic cardiomyopathies (hypertrophic, dilated, restrictive, arrhythmogenic dysplasia of the right ventricle, etc.): pathogenesis, classification, clinical options, diagnostic criteria. The role of echocardiographic examination. Main complications. Prognosis and outcomes. Principles of treatment. Indications for surgical intervention.</p> <p><b><i>Myocarditis</i>.</b>Etiology, pathogenesis, classification, clinical options, diagnostic criteria. Principles of treatment of myocarditis. Main complications. Prognosis and outcomes.</p>	6	Interview, survey, testing
2	13	<p><b>Chronic heart failure (CHF).</b>Reasons for development pathogenesis, diagnostic criteria, classification of treatment (regimen, diet, drug therapy for CHF: primary, additional and auxiliary drugs). Medical examination and prevention. Standard of specialized medical care for heart failure dated December 24, 2012 No. 1554n.</p>	8	Interview, survey, testing
2	14	<p><b>Symptomatic hypertension.</b>Classification. Differential approach to the diagnosis of renal, endocrine, hemodynamic, central forms of arterial hypertension. Causes of iatrogenic increase in blood pressure. Modern approaches to treatment</p>	4	Interview, survey, testing
<b>Total hours for the semester: 144</b>				
Semester 8				
3	1	<p><b>Glomerulonephritis.</b>Definition of the concept "glomerulonephritis". Modern understanding of etiology and pathogenesis. Classifications. Main clinical syndromes. Laboratory and instrumental criteria for the active process. Flow options. Outcomes. Complications. Treatment: regimen, diet, indications for the use of corticosteroids and cytostatics. The concept of pulse therapy. Primary and secondary prevention of glomerulonephritis. Emergency care for cerebral edema, pulmonary edema, acute renal failure, etc.Standard of specialized medical care for disorders developing as a result of renal tubular dysfunction (tubulopathy) dated November 9, 2012 No. 762n.</p>	4	Interview, survey, testing
3	2	<p><b>Chronic renal failure.</b>Definition of the concept of "chronic renal failure" and "chronic kidney disease". Modern understanding of etiology and pathogenesis, classification. Laboratory and instrumental criteria for diagnosis. Treatment: regimen, diet, indications for the use of extracorporeal methods (hemodialysis, peritoneal dialysis, indication for kidney transplantation. Primary and secondary prevention of chronic renal failure.</p>	4	Interview, survey, testing

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
4	3	<p><b>Chronic gastritis.</b> Definition. Prevalence. Etiology. Modern classification of gastritis. Pathogenesis of gastritis associated with <i>Helicobacter pylori</i>: antral and diffuse. Its role in the development of peptic ulcer disease. Pathogenesis of autoimmune gastritis. Features of secretion and motility. Clinical picture, course. Main clinical syndromes. Diagnostic criteria (endoscopic and morphological). Treatment depending on the etiological factor, the state of the secret activity of the stomach, on the stage (exacerbation, remission): diet, drug therapy. Forecast. Primary and secondary prevention. Clinical examination.</p>	4	Interview, survey, testing
4	4	<p><b>Peptic ulcer of the stomach and duodenum.</b> Definition, Epidemiology. Etiology. The role of <i>Helicobacter pylori</i> in the development of peptic ulcer disease. Pathogenesis. The concept of factors of aggression (acid-peptic) and protection (mucosal-bicarbonate barrier). Main clinical syndromes. The clinical picture depends on the location of the ulcer, the characteristics of the secretory and motor functions of the stomach. Methods for studying the secretory activity of the stomach; concept of basal and peak acid production. Features of the course of peptic ulcer of the duodenum and body of the stomach, pyloric canal, antrum of the stomach, postbulbar ulcers. Primary ulcerative form of stomach cancer. Complications: perforation, bleeding, penetration, pyloric or duodenal stenosis, perivisceritis. Tactics of management of patients with peptic ulcer of the duodenum and body of the stomach. Indications for planned surgical treatment. Treatment: Diet regimen and features. Anti-<i>Helicobacter</i> therapy. Antacids, anticholinergics, H blockers<sup>2</sup></p> <p>receptors, H+K+ blockers - ATPases, gastrin receptor antagonists, cytoprotectors (synthetic prostaglandins), prokinetics. Course treatment "on demand". Prevention. Dispensary observation.</p>	4	Interview, survey, testing
4	5	<p><b>Chronic colitis: nonspecific ulcerative colitis, Crohn's disease.</b> Etiology, pathogenesis, prevalence of diseases. Intestinal and extraintestinal clinical manifestations. Flow options. Complications. X-ray and endoscopic diagnostic studies. The importance of morphological examination to confirm the diagnosis. Functional bowel diseases: definition, classification, clinical picture, differential diagnosis with inflammatory bowel diseases.</p>	4	Interview, survey, testing

Section no.	Seminar no. ETC	Topics of seminars, practical work	Number of hours	Forms current control
4	6	<b>Chronic pancreatitis.</b> Definition. Etiology and pathogenesis. Primary and secondary pancreatitis. Clinical picture. Dependence of clinical manifestations on the localization of the process. The role of pancreatic function testing and instrumental research methods. Differential diagnosis of chronic pancreatitis with pancreatic cancer. Treatment. Diet depending on the form and stage of the disease. Differentiated therapy taking into account the form of the disease and the phase of its course. Indications for surgical treatment	4	Interview, survey, testing
5	7	<b>Anemia.</b> Definition of the concept. Modern classification of anemia. Main clinical syndromes (circulatory-hypoxemic, sideropenic, funicular myelosis, hematological). Laboratory diagnostic criteria. The concept of physiological anemia in pregnant women.  Iron-deficiency anemia. Metabolism of iron in the body, stages of development of iron deficiency. Sideoachrestic states. The main causes of iron deficiency in the body. Treatment. The main groups of iron-containing drugs, tactics of their use, monitoring the effectiveness of therapy. Prevention of iron deficiency anemia.	4	Interview, survey, testing
5	8	<b>Acute and chronic leukemia.</b> Acute and chronic leukemia. Classification of leukemia. Clinical picture. Laboratory and morphological diagnostics. Main clinical syndromes. Course and complications. Principles of therapy and its stages (induction and consolidation of remission, prevention of neuroleukemia, treatment during remission). Therapy of certain variants of the disease. Complications of cytostatic therapy. Prognosis and survival. Clinical examination and rehabilitation of patients with acute leukemia	4	Interview, survey, testing
6	9	<b>Deforming osteoarthritis, rheumatoid arthritis, gout.</b> Etiology, pathogenesis, classification, features of the clinical picture, diagnostic criteria. Modern approaches to treatment. Standard of specialized medical care for primary coxarthrosis; rheumatoid arthritis, gout with damage to the hip joints; osteonecrosis and cysts of the femoral head dated December 20, 2012 No. 1132n.	8	Interview, survey, testing
		<b>Total hours for the semester: 108</b>		
		<b>Total discipline hours: 252</b>		

### 4.3. Independent work of students

No. chapter A	Type of independent work of students	Qty hours	Forms of current control
Semester 7			
1	Preparation for current control Preparation for practical exercises	22	Solving test tasks and situational tasks
2	Studying the atlas and manual on ECG Preparation for current control Preparation for practical exercises	thirty	Solving test tasks and situational tasks
	Total hours for the semester: 52		
Semester 8			
3	Preparation for current control Preparation for practical exercises	8	Solving test tasks and situational tasks
4	Preparation for current control Preparation for practical exercises	8	Solving test tasks and situational tasks
5	Preparation for current control Preparation for practical exercises	8	Solving test tasks and situational tasks
	Total hours for the semester: 24		
	Total discipline hours: 76		

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

The fund of assessment tools for determining the level of development of competencies as a result of mastering the discipline is an appendix to the work program.

### VI. EDUCATIONAL AND METHODOLOGICAL SUPPORT OF DISCIPLINE

#### 6.1. Printed publications.

- Internal diseases: textbook: in 2 volumes. Volume 1 :[rec. GBOU VPO "First Moscow State Medical University named after I.M. Sechenov] / edited by V.S. Moiseev, A.I. Martynov, N.A. Mukhin. - 3rd ed., corrected and additional - M.: GEOTAR-Media, 2015. - 958 p.EBS RostSMU]. - [Electronic resource]- ISBN978-5-9704-1417-0- Access mode: <http://www.studmedlib.ru/book/ISBN9785970414170.html>
- Internal diseases: textbook: in 2 volumes. Volume 2 :[rec. GBOU HPE "First Moscow State Medical University named after I.M. Sechenov]: for university students / edited by V.S. Moiseev, A.I. Martynov, N.A. Mukhin. - 3- e ed., revised and additional – M: GEOTAR-Media, 2015. - 895 p.EBS RostSMU]. - [Electronic resource] / ISBN 978-5-9704-1421-7 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970414217.html>
- Internal illnesses [Electronic resource] : textbook / Makolkin V.I., Ovcharenko S.I., Sulimov V.A. - 6th ed., revised. and additional - M.: GEOTAR-Media, 2013. - 768 p. [EBS RostSMU]. - ISBN 978-5-9704-2576-3 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970425763.html>

1. Internal diseases. Tests and situational tasks [Electronic resource]: textbook / Makolkin V.I., Sulimov V.A., Ovcharenko S.I. and others - M.: GEOTAR-Media, 2014. - 304 p. - ISBN 978-5-9704-2765-1 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970427651.html>
2. Clinical pharmacology of acute heart failure [Electronic resource] / V.I. Petrov, M.Yu. Frolov, D.N. Emelyanov - M.: GEOTAR-Media, 2011. - Access mode: <http://www.studmedlib.ru/book/970409169V0053.html>
3. Modern approaches to solving the problem of sudden cardiac death [Electronic resource] / V. V. Rezvan, N. V. Strizhova, A. V. Tarasov; edited by L.I. Dvoretzky. - M.: GEOTAR-Media, 2015. - 96 p. - ISBN 978-5-9704-2534-3 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970425343.html>
4. Rational pharmacotherapy of cardiovascular diseases [Electronic resource]: a guide for practicing physicians / edited by. ed. E. I. Chazova, Yu. A. Karpova. - 2nd ed., rev. and additional - M.: Litterra, 2014. - 1056 p. (Series "Rational pharmacotherapy") - ISBN978-5-4235-0082-5- Access mode: <http://www.studmedlib.ru/book/ISBN9785423500825.html>
5. Prevention of cardiovascular diseases: a guide [Electronic resource] / Oganov R.G., Shalnova S.A., Kalinina A.M. - M.: GEOTAR-Media, 2009. - 216 p. (Series "Library of a medical specialist") - ISBN 978-5-9704-1110-0 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970411100.html>
6. Rational pharmacotherapy of rheumatic diseases [Electronic resource] / Nasonova V.A., Nasonov E.L., Alekperov R.T. and others / Under the general ed. V.A. Nasonova, E.L. Nasonova - M.: Litterra, 2010. - 448 p. (Rational Pharmacotherapy: Compendium) - ISBN978-5-904090-39-5- Access mode: <http://www.studmedlib.ru/book/ISBN9785904090395.html>

## 6.2. Internet resources

ELECTRONIC EDUCATIONAL RESOURCES		Access to the resource
<b>Electronic libraryRostGMU.</b> URL: <a href="http://109.195.230.156:9080/opac/">http://109.195.230.156:9080/opac/</a>	-	Access is not limited
<b>Student Advisor</b> [Sets: "Medicine. Healthcare. VO"; "Medicine. Healthcare. SPO"; "Psychological Sciences"]: Electronic library system. - Moscow: Politekhresurs LLC. - URL: <a href="https://www.studentlibrary.ru">https://www.studentlibrary.ru</a> + opportunities for inclusive education		Access is not limited
<b>Consultant doctor.Electronic medical library:</b> Electronic library system. - Moscow: LLC "Higher School of Organization and Management of Healthcare. Comprehensive medical consulting." - URL: <a href="http://www.rosmedlib.ru">http://www.rosmedlib.ru</a> + opportunities for inclusive education		Access is not limited
<b>Scientific electronic library eLIBRARY.</b> - URL: <a href="http://elibrary.ru">http://elibrary.ru</a>		Open access



	<b>National Electronic Library.</b> - URL: <a href="http://neb.rf/">http://neb.rf/</a>	Access from computers libraries
	<b>SpringerNature publishing database.</b> - URL: <a href="https://link.springer.com/">https://link.springer.com/</a> via IP addresses of RostSMU and remotely after registration, remotely via RFBR CIAS <a href="https://kias.rfbr.ru/reg/index.php">https://kias.rfbr.ru/reg/index.php</a> (National project)	Access is not limited
	<b>WileyOnlineLibrary</b> / JohnWiley&Sons. - URL: <a href="http://onlinelibrary.wiley.com">http://onlinelibrary.wiley.com</a> via IP addresses of RostSMU and remotely after registration(National project)	Access limited
	<b>Wiley.Full text collection electronic magazines</b> <b>MedicalSciencesJournalBackfile</b> :archive. - URL: <a href="https://onlinelibrary.wiley.com/">https://onlinelibrary.wiley.com/</a> via IP addresses of RostGMU and remotely after registration(National project)	Indefinite subscription
	<b>SagePublication</b> :[full-text collection of e-books eBookCollections]. URL: <a href="https://sk.sagepub.com/books/discipline">https://sk.sagepub.com/books/discipline</a> by IP addresses RostSMU(National project)	Indefinite subscription
	<b>OvidTechnologies</b> :[Full-text archived collection of LippincottWilliamsandWilkinsArchiveJournals]. - URL: <a href="https://ovidsp.ovid.com/autologin.cgi">https://ovidsp.ovid.com/autologin.cgi</a> by IP addresses of RostSMU (National project)	Indefinite subscription
	<b>Questel database OrbitPremiumedition</b> :patent database search <a href="http://www.orbit.com/">http://www.orbit.com/</a> by IP addresses of RostSMU(National project)	Access limited
	<b>Wiley</b> :official website; chapter "Open Access"/John Wiley & Sons. - URL: <a href="https://authorservices.wiley.com/open-research/open-access/browse-journals.html">https://authorservices.wiley.com/open-research/open-access/browse-journals.html</a>	Content open access
	<b>Russian education. Single window of access</b> :federal portal.-URL: <a href="http://www.edu.ru/">http://www.edu.ru/</a> .- New educational environment.	Open access
	<b>Federal Center for Electronic Educational Resources.</b> - URL: <a href="http://srtv.fcior.edu.ru/">http://srtv.fcior.edu.ru/</a>	Open access
	<b>Electronic Library of the Russian Foundation for Basic Research</b> (RFBR). -URL: <a href="http://www.rfbr.ru/rffi/ru/library">http://www.rfbr.ru/rffi/ru/library</a>	Open access
	<b>Federal Electronic Medical Library of the Russian Ministry of Health.</b> - URL: <a href="https://femb.ru/femb/">https://femb.ru/femb/</a>	Open access
	<b>Cochrane Library</b> :official website; section "OpenAccess". - URL: <a href="https://cochranelibrary.com/about/open-access">https://cochranelibrary.com/about/open-access</a>	Content open access
	<b>CochraneRussia</b> :Russian department Cochrane cooperation/RMANPO. - URL: <a href="https://russia.cochrane.org/">https://russia.cochrane.org/</a>	Content open access
	<b>Webmedinfo.ru</b> :website [open information and educational medical resource]. - Moscow. - URL: <a href="https://webmedinfo.ru/">https://webmedinfo.ru/</a>	Open access
	<b>UnivadisfromMedscape</b> :international honey. portal. - URL: <a href="https://www.univadis.com/">https://www.univadis.com/</a> [Regularly updated base unique information and educational medical resources].	Free registration
	<b>Med-Edu.ru</b> : medical educational video portal. -URL: <a href="http://www.med-edu.ru/">http://www.med-edu.ru/</a> .Free registration.	Open access
	<b>Doctor's world</b> :professional portal [information resource for doctors and students]. - URL: <a href="https://mirvracha.ru">https://mirvracha.ru</a> .	Free registration
	<b>DoctorSPB.ru</b> :information-reference portal about medicine [for students and doctors]. - URL: <a href="http://doctorspb.ru/">http://doctorspb.ru/</a>	Open access

	<b>BEARWEST</b> :Russian doctor portal [library, knowledge base]. - URL: <a href="https://medvestnik.ru">https://medvestnik.ru</a>	Open access
	<b>PubMed</b> : electronic search engine [on biomedical research of the National Center for Biotechnology Information (NCBI, USA)]. - URL: <a href="https://pubmed.ncbi.nlm.nih.gov/">https://pubmed.ncbi.nlm.nih.gov/</a>	Open access
	<b>CyberleninkaOpenScienceHub</b> :open scientific electronic library of publications in foreign languages. – URL: <a href="https://cyberleninka.org/">https://cyberleninka.org/</a>	Content open that access
	<b>Scientific heritage of Russia: eelectronic library / MSC RAS.</b> - URL: <a href="http://www.e-heritage.ru/">http://www.e-heritage.ru/</a>	Open access
	<b>KOOB.ru</b> :electronic library of books on medical psychology. -URL: <a href="http://www.koob.ru/medical_psychology/">http://www.koob.ru/medical_psychology/</a>	Open access
	<b>Presidential Library</b> : website. - URL: <a href="https://www.prilib.ru/collections">https://www.prilib.ru/collections</a>	Open access
	<b>SAGE Openaccess</b> :open access resources / Sage Publications. – URL: <a href="https://uk.sagepub.com/en-gb/eur/open-access-at-sage">https://uk.sagepub.com/en-gb/eur/open-access-at-sage</a>	Content open that access
	<b>EBSCO&amp;OpenAccess</b> :resources open access. – URL: <a href="https://www.ebsco.com/open-access">https://www.ebsco.com/open-access</a>	Content open that access
	<b>Lvrach.ru</b> :honey. scientific-practical portal [largest prof. resource for doctors and medical community, created on the basis of scientific and practical. magazine "Attending Physician"]. - URL: <a href="https://www.lvrach.ru/">https://www.lvrach.ru/</a>	Open access
	<b>ScienceDirect</b> :official website; "Open Access" section/Elsevier. - URL: <a href="https://www.elsevier.com/open-access/open-access-journals">https://www.elsevier.com/open-access/open-access-journals</a>	Content open access
	<b>Taylor &amp; Francis. Dove Medical Press. Openaccessjournals</b> :open logs access. – URL: <a href="https://www.tandfonline.com/openaccess/dove">https://www.tandfonline.com/openaccess/dove</a>	Content open access
	<b>Taylor &amp; Francis. Open access books</b> :open access books. – URL: <a href="https://www.routledge.com/our-products/open-access-books/taylor-francis-oa-books">https://www.routledge.com/our-products/open-access-books/taylor-francis-oa-books</a>	Content open access
	<b>Thieme. Open access journals</b> :open access journals/Thieme Medical Publishing Group. –URL: <a href="https://open.thieme.com/home">https://open.thieme.com/home</a>	Content open that access
	<b>KargerOpenAccess</b> :open access journals/S. Karger AG. – URL: <a href="https://www.karger.com/OpenAccess/AllJournals/Index">https://www.karger.com/OpenAccess/AllJournals/Index</a>	Content open that access
	<b>Archive scientific magazines /NP NEICON.</b> - URL: <a href="https://arch.neicon.ru/xmlui/">https://arch.neicon.ru/xmlui/</a>	Open access
	<b>Russian doctor</b> : website[news for doctors and medical archive. magazines]/ Publishing House "Russian Doctor". - URL: <a href="https://rusvrach.ru/">https://rusvrach.ru/</a>	Open access
	<b>DirectoryofOpenAccessJournals</b> :[full-text journals from 121 countries, incl. in medicine, biology, chemistry]. - URL: <a href="http://www.doaj.org/">http://www.doaj.org/</a>	Open access
	<b>Free Medical Journals.</b> - URL: <a href="http://freemedicaljournals.com">http://freemedicaljournals.com</a>	Open access
	<b>FreeMedical Books.</b> - URL: <a href="http://www.freebooks4doctors.com">http://www.freebooks4doctors.com</a>	Open access
	<b>International Scientific Publications.</b> -URL: <a href="http://www.scientific-publications.net/ru/">http://www.scientific-publications.net/ru/</a>	Open access
	<b>Eco-Vector</b> : portal of scientific journals/IT platform of the Russian group of companies "ECO-Vector". - URL: <a href="http://journals.eco-vector.com/">http://journals.eco-vector.com/</a>	Open access
	<b>Medline.Ru</b> : scientific biomedical journal : online electronic publication. - URL: <a href="http://www.medline.ru">http://www.medline.ru</a>	Open access

	<b>Medical Bulletin of the South of Russia:</b> electron. magazine/RostSMU. - URL: <a href="http://www.medicalherald.ru/jour">http://www.medicalherald.ru/jour</a>	Open access
	<b>Journal of Urology</b> ("UrologyHerald"):electron. magazine / RostSMU. - URL: <a href="https://www.urovest.ru/jour">https://www.urovest.ru/jour</a>	Open access
	<b>South Russian magazine therapeutic practices /</b> RostSMU. -URL: <a href="http://www.therapeutic-j.ru/jour/index">http://www.therapeutic-j.ru/jour/index</a>	Open access
	<b>Categories</b> clinical recommendations of the Russian Ministry of Health. -URL: <a href="https://cr.minzdrav.gov.ru/">https://cr.minzdrav.gov.ru/</a>	Open access
	FBUZ " <b>Information and methodological center</b> » Rospotrebnadzor: official website. -URL: <a href="https://www.crc.ru">https://www.crc.ru</a>	Open access
	<b>Ministry of Health of the Russian Federation:</b> official website. - URL: <a href="https://minzdrav.gov.ru">https://minzdrav.gov.ru</a>	Open access
	<b>Federal Service for Supervision</b> in the field of healthcare: official website. - URL: <a href="https://roszdravnadzor.gov.ru/">https://roszdravnadzor.gov.ru/</a>	Open access
	<b>World Health Organization:</b> official website.- URL: <a href="http://who.int/ru/">http://who.int/ru/</a>	Open access
	<b>Ministry of Science and Higher Education</b> Russian Federation: official website. - URL: <a href="http://minobrnauki.gov.ru/(search_engine_Yandex_system)">http://minobrnauki.gov.ru/(search engine Yandex system)</a>	Open access
	<b>Modern problems of science and education:</b> electron. magazine. Online publication. - URL: <a href="http://www.science-education.ru/ru/issue/index">http://www.science-education.ru/ru/issue/index</a>	Open access
	Dictionaries <b>And encyclopedias on Academician.</b> - URL: <a href="http://dic.academic.ru/">http://dic.academic.ru/</a>	Open access
	<b>Official Internet portal of legal information.</b> - URL: <a href="http://pravo.gov.ru/">http://pravo.gov.ru/</a>	Open access
	<b>Education in Russian:</b> educational portal / State. Institute of Russian language them. A.S. Pushkin. -URL: <a href="http://pushkininstitute.ru/">http://pushkininstitute.ru/</a>	Open access
	<b>History.RF.</b> [The main historical portal of the country]. - URL: <a href="https://histrf.ru/">https://histrf.ru/</a>	Open access
	<b>Other open resources You you can find By address:</b> <a href="http://rostgmu.ru">http://rostgmu.ru</a> → Library → Electronic catalogue → Open Internet resources → further by keyword...	

### 6.3. Guidelines for students on mastering the discipline

Studying the discipline should culminate in mastering the necessary professional knowledge, skills and abilities. This result can be achieved only after very significant efforts, and not only effort and ability will be important, but also a well-thought-out organization of educational activities, including the correct organization of time.

First of all, it is necessary in a timely manner - at the very beginning of the semester, to familiarize yourself with this work program, which indicates how much information should be

learn what skills to acquire to successfully master the discipline, what tasks to complete in order to get a decent grade. All types of classes are distributed throughout the semester systematically, taking into account the necessary time expenditure.

One of the main components of successful mastery of the discipline is regular attendance at lectures and practical classes.

At the lecture, the teacher informs students about new achievements in medical science, about the main provisions of the academic discipline, reveals the features of each specific topic, and introduces the problems in this section of science; orients in the sequence of development of theories, views, ideas, explains basic scientific concepts, reveals the meaning of terms - that is, educational information has already been processed by the teacher and becomes more adapted and easier for students to understand.

The development of practical skills and abilities takes place in practical classes, where students have the opportunity to apply the knowledge they have already acquired in practice, to practice practical skills and abilities.

You should prepare for a practical lesson in advance, having an idea of the course and requirements of each lesson. During practical classes, you can directly contact the teacher in case of difficulties in understanding some questions on the topics being studied.

An important part of a student's work is reading and taking notes of scientific works. Note-taking work should be done after first studying the practical lesson plans, section topics, and interview questions.

A systematic approach to the study of a subject involves not only a thorough study of specialized literature, but also reference to additional sources - reference books, encyclopedias, dictionaries. These sources are an important aid in the student's independent work, since a deep study of such materials will allow the student to confidently "recognize" and then independently operate with scientific categories and concepts, and therefore master professional scientific terminology.

Independent work of students includes performing various kinds of tasks that are focused on a deeper assimilation of the material of the discipline being studied. For each topic of the academic discipline, students are offered a list of tasks for independent work. The following requirements apply to completing assignments for independent work: assignments must be completed independently and submitted within the established deadline, as well as meet the established formatting requirements.

When preparing for the exam, you need appropriate parallel work through theoretical and practical sections of the discipline.

The recommendations given above will allow you to complete all assignments in a timely manner, obtain the necessary professional skills and abilities, as well as a decent grade, and avoid the need to waste time on retraining and retaking the subject.

## **VII. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE**

In the process of mastering an additional professional program, distance learning is used, based on Internet technologies with synchronous distance learning methods. To do this, a case with folders for each educational module is created on the educational portal of RostSMU. The folders include regulatory documents, Internet links, lecture material, questions for self-control, and test tasks. Each student receives their own original password, which gives access to the educational materials of the portal.

To undergo training and certification under the program, each student is required to:

- availability of a personal computer;
- access to the Internet