

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

PENZA STATE UNIVERSITY

Medical Institute

APPROVED

by director of the institute


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**STUDY PROGRAM
OF THE ACADEMIC DISCIPLINE**

C 1.1.35 Propaedeutics of Internal Diseases, Diagnostic Radiology

Program (specialty)- 31.05.01 General Medicine

Graduate's qualification (degree) - Medical doctor

Study format - Full-time

Penza, 2016

1. Goals of the discipline

The goal of the discipline Propaedeutics of Internal Diseases, Diagnostic Radiology are: developing students' competences, training students within the main types of professional activity: diagnosis; therapy; prevention; research.

The objectives of the discipline Propaedeutics of Internal Diseases, Diagnostic Radiology are: studying methods of collecting complaints, anamnesis; conducting physical examination of organs and systems; examining adult patients; defining etiology and pathogenesis, typical clinical manifestations and course of the most common nosological forms of diseases in adult patients.

2. Discipline's place in BPEP structure

The academic discipline Propaedeutics of Internal Diseases, Diagnostic Radiology refers to the basic part of the block CI. The discipline is of the basic one, which is interconnected with the following disciplines: Anatomy; Biology; Biochemistry; Histology, Embryology, Cytology; Normal Physiology; Pharmacology.

The main provisions of the discipline are required for studying the clinical disciplines: Faculty Therapy, Occupational Diseases; Hospital Therapy, Endocrinology; Polyclinic Therapy; Infectious Diseases; Neurology, Medical Genetics; Phthisiology; Clinical Hematology; Oncology, Radiation Therapy; Anesthesiology, Resuscitation and Intensive Care.

3. Student's competences acquired through successful completion of the discipline Propaedeutics of Internal Diseases, Diagnostic Radiology

The process of studying the discipline is aimed at forming the components of the following competences in accordance with Federal State Educational Standards of Higher Education (hereinafter - FSES HE) in this specialty:

Competence code	Title of competence	Structural elements of competence (having mastered the discipline students should have knowledge, skills, working abilities)
1	2	3
GC-1	ability to abstract thinking, analysis, synthesis	Knowledge: methods of analysis and synthesis
		Skills: applying methods of analysis and synthesis
		Working abilities: ability to use methods of analysis and synthesis
GC-8	readiness to work in a team, to tolerate social, ethnic, religious and cultural differences	Knowledge: social, ethnic, religious and cultural differences
		Skills: tolerating social, ethnic, religious and cultural differences
		Working abilities: ability to work in a team
PC-5	readiness to collect and analyze patient complaints, his/her medical history, examination results, laboratory, instrumental, pathological and other studies in order to recognize the condition or establish the	Knowledge: complaints, laboratory and instrumental methods of research in various diseases
		Skills: collecting complaints, anamnesis; examining patients
		Working abilities: ability to analyze complaints, medical history, examination results, laboratory tools, post-mortem and other studies in order to

	presence or absence of a disease	establish the state or the presence or absence of a disease
PC-15	readiness to teach patients and their relatives basic hygiene health-improving practices, skills of self-monitoring of basic physiological indicators that contribute to preserving and strengthening health, and preventing diseases	Knowledge: basic hygiene health-improving practices, self-monitoring of basic physiological parameters
		Skills: teaching patients and their relatives basic hygiene health-improving practices, monitoring basic physiological indicators
		Working abilities: ability to independently teach patients and their relatives basic hygiene health-improving practices, ability to monitor basic physiological indicators
PC-17	ability to apply basic principles of organization and management in the field of public health, in medical organizations and their structural divisions	Knowledge: basic principles of organization and management in public health in general and in medical organizations and their structural divisions
		Skills: applying basic principles of organization and management in public health in general and in medical organizations and their structural divisions
		Working abilities: ability to independently apply basic principles of organization and management in public health in general and in medical organizations and their structural divisions

4. Structure and content of the discipline (module) Propaedeutics of Internal Diseases, Diagnostic Radiology

4.1. Structure of the discipline (module)

The total workload of the discipline amounts to 12 credit units, 432 hours.

Discipline's (module's) sections and topics	Semester	Semester's weeks	Types of learning, including students' out-of-class work and workload (in hours)									Current progress monitoring types (by semester's weeks)							
			In-class work				Out-of-class work					Interview	Spoken test	Test marking	Test checking	Paper marking	Marking of essays and other creative works	Course work (project)	Σ
			Total	Lectures	Practical classes	Laboratory classes	Total	Preparation for in-class work	Papers, essays etc.	Course work (project)	Preparing for exam								
<i>Section 1. Subject and task of internal diseases propaedeutics</i>	5		7	2	5			5				1							
Topic 3.1. Medical ethics and deontology. Russian schools of internal medicine. Scheme of medical history. Diagnosis, types of diagnoses.	5		7	2	5			5				1							
Topic 1.2. General examination. Methodology of general examination.	5		7	2	5			5				2		2					

<i>Section 2. Semiotics of respiratory diseases.</i>	5	3-6	28	8	20		18	16		2								
Topic 2. J. Questioning in respiratory diseases. General examination, palpation, percussion in respiratory diseases.	5	1	1	2	5		5	4		1				3				3
Topic 2.2. Auscultation of lungs. Rules of auscultation. Primary and secondary respiratory sounds. Diagnosis of main bronchopulmonary syndromes.	5	4	1	2	5		5	4		1		4		4				4
Topic 2.3. Instrumental and laboratory diagnostic methods of respiratory diseases.	5	5	1	2	5		4	4				5		5				
Topic 2.4. Diagnostic radiology of lungs diseases.	5	6	1	2	5		4	4				6		6				
Section 3. Semiotics of cardiovascular diseases.	5	7-10	30	10	20		20	18		2								
Topic 3.1 Questioning, general examination, palpation, percussion in cardiovascular diseases.	5	1	1	2	5		6	5		1		7		7				7
Topic 3.2. Auscultation of the heart. Main heart tones. Heart murmurs. Changes in pathology.	5	8	9	4	5		6	5		1		8		8				8

Disciplines	Prerequisites and corequisites	Semester		Types of learning activities							Current progress monitoring (70% of total marks)									
		Semester's weeks	Total	Lectures	Practical classes	Laboratory classes	Total	Preparation for in-class work	In-class work			Out-of-class work								
									Interview	Written test	Test marking	Test checking	Paper marking	Marking of essays and other	Course work (project)					
Topic 3. Laboratory methods of diagnosis of cardiovascular. Synthesis of cardiovascular diseases.		11	0	-1	to	01		-1b.	4*				0	0	40					
Topic 4. X-ray methods of heart diagnosis. Section 4.1. Digestive organs and diseases.		11	0	-0	to	01		-0	4^				0		0					
Topic 4.1. Digestive organs and diseases.		11	0	-0	to	01		-0	4^				0		0					
Topic 4.2. Questions relating, general examination, percussion and palpation of patient and biliary ducts diseases.		11	0	-1	to	01		U)	4b.				to							
Topic 4.3. Primary methods of diagnosis of digestive organs and diseases.		11	0	0	to	01		4^	4^				U)							
Topic 4.4. X-ray methods of diagnosis of digestive organs and diseases.		11	0	-1	to	01		4b	4>				4^		4^					
Section 4.5. Soft tissue examination.		11	0	-1	to	01		4b	4>				4^		4^					
Section 4.6. Organ systems.		11	0	-1	to	01		4b	4>				4^		4^					

Topic 5.1. Questioning, general examination, palpation and percussion of patients with kidneys and urinary organs diseases. Syndromes of urinary diseases.	5	15		z	5		4			1		15		15			
Topic 5.2. Laboratory and instrumental methods of examining patients with kidneys and urinary diseases.	5	16		1	5			J				16		16			
Topic 5.3. Diagnostic radiology of patients with kidneys and urinary diseases.	5	17	6	1	5		3	4				17		17			
<i>Section 6. Semiotics of hematopoietic diseases.</i>	5	18	7	2	5		4	4									
Topic 6.1. Questioning, general examination, palpation, percussion of patients with hematopoietic diseases.	5	18	7	2	5		4	4				18		18			
<i>Section 7. Semiotics of some endocrine diseases.</i>	5	19	7	2	5		3	J									
Topic 7.1. Questioning, general examination, palpation, percussion of patients with endocrine diseases.	5	19	1	2	5		J	o J				19		19			19
Total for semester	5			38	95		83	76		7							
<i>Section 8. Respiratory diseases.</i>	6	1-4	2 4	8	16		16	16									
Topic 8.1. Pneumonia. Etiology. Pathogenesis. Clinical differences between lobar and local pneumonia. Diagnosis. Bronchoectatic disease	6	1	6	2	4		4	4				1		1			1
Topic 8.2. Bronchitis. Classification. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	6	2	6	2	4		4	4				2		2			
Topic 8.3. Bronchial asthma. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	6	J	6	2	4		4	4				3					
Topic 8.4. Emphysema. Respiratory failure. Pulmonary heart disease. Classification. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	6	4	6	z	4		4	4				4		4			

<i>Section 9. Cardiovascular diseases.</i>	6	5-8	3 0	10	20		20	20									
Topic 9.1. Arterial hypertension. Classification. Etiology. Pathogenesis. Clinical symptoms. Complication of AH.	6	5	6	2	4		5	5				5		5			
Topic 9.2. IHD. Etiology. Pathogenesis. Classification. Clinical symptoms. Diagnosis. Acute myocardial infarction.	6	6	6	2	4		5	5				6		6			
Topic 9.3. Acute rheumatic fever. Etiology. Pathogenesis. Clinical symptoms. Mitral stenosis. Tricuspid valve defects: stenosis and insufficient. Aortic valve stenosis. Aortic valve insufficient.	6	7	1 2	4	8		5	5				7		7			
Topic 9.4. Heart failure. Classification. Acute heart failure.	6	8	6	2	4		5	5				8		8			
<i>Section 10. Digestive organs diseases.</i>	6	9-11	8	6	12		12	12									
Topic 10.1 Gastritis. Peptic and duodenal ulcer. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	6	9	6	2	4		4	4				9		9			
Topic 10.2. Chronic gastritis. Cirrhosis of the liver. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	6	10	6	2	4		4	4				10		10			
Topic 10.3. Chronic pancreatitis. Chronic cholecystitis. Diseases of the intestine.	6	11	6	2	4		4	4				11		11			
<i>Section 11. Urinary diseases.</i>	6	12-13	1 2	4	8		8	8									
Topic 11.1. Acute and chronic pyelonephritis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.		12	6	2	4		4	4				12		12			
Topic 11.2. Acute and chronic glomerulonephritis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	6	13	6	2	4		4	4				13		13			13

Section 12. Hematopoietic and endocrine diseases.	6		2	4	8		5	Я									
Topic 12.1. Anemia. Hemoblastosis.	6	14	6	2	4		4	4				14		14			
Topic 12.2. Diabetes mellitus.	6	15	6	2	4		4	4				15		15			
Section 13. Emergency conditions in clinical picture of internal diseases.	6		12	4	5		8	6									
Topic 13.1. Sudden death. Development mechanisms. Principles of the first aid. Cardiogenic shock. Pulmonary edema. Acute respiratory failure.	6	16	6	2	4		4	4				16		16			
Topic 13.1. Quincke's edema. Anaphylactic shock.	6	17	6	2	4		4	4									
Total for semester	6		108	36	72		72	72									
<i>Course work (project)</i>	5									7							
<i>Preparing for exam</i>	6											36					
Total workload, in hours												Interim assessment					
												Type			Semester		
												Test					
												Exam					

4.2. Discipline's (module's) content

Discipline's section	Nº	Lecture topic	Content
		5 semester	
Subject and task of internal diseases propaedeutics	1.	Medical ethics and deontology. Russian schools of internal medicine. Scheme of medical history. Diagnosis, types of diagnoses.	Medical ethics and deontology. Brief history of developing a study about diagnostic methods and internal diseases. Russian schools of internal medicine Main tasks of propaedeutics of internal diseases course. Types of diagnoses. Methodology of diagnosis. Scheme of medical history. Value of medical history as a scientific and medical legal document.
		General examination. Methodology of general examination.	General examination. General condition of a patient. Conciseness, types of disturbance. Position of the patient (active, passive, forced). Body type. Concept of constitutional body type. Body temperature. Skin and visible mucous membranes. Change in skin color. Pigmentation, depigmentation. Scars, rashes, hemorrhages, scratches. Trophic changes: ulcers, bedsores. Skin turgor. Development and distribution of subcutaneous tissue. Edema, localization prevalence and severity. Methods of lymph nodes examination. Diagnostic value of changes. Muscles: degree of development, tone, muscle strength. Bones: shape, presence of deformities, soreness. Concept of bone fractures. Joints: shape, mobility. Percussion: history of percussion development as an examination method. Role of Auerbrugger in developing the method, its introduction into practice by Corvizar. Value of researchers work in developing this method. Physical rationale for percussion. General rules and percussion technique. Auscultation. History of developing auscultation as patient examination method. Role of Laennec. Value of Russian researchers work in developing this method. Physical justification of auscultation.
Semiotics of respiratory diseases	p.	Questioning in respiratory diseases. General examination, palpation, percussion in respiratory diseases.	Questioning: Main complaints and mechanism of their appearance. Cough dry (unproductive) or with sputum (productive), regular or paroxysmal, intensive or less, reasons of appearance and relief. Separation of sputum: character, color, presence or absence of odor, position of patient, which increases better separation. Haemoptysis, lung bleeding; difference between nasal, esophageal

and stomach bleedings.

Pain in the chest. Localization and irradiation of pain. Character of pain in pleura damage, respiratory muscles and other organs. Relation of pain with breathing and coughing.

Dyspnea (inspiratory, expiratory, mixed, tachypnea, stridorosal breathing), asthma attacks. Mechanisms of appearance, diagnostic value.

Fever, sweating, chills.

Types of temperature curves.

Change of voice: hoarseness, aphonia.

Diagnostic value.

Value of anamnesis for diagnostic and prognosis of bronchopulmonary diseases.

Inspection. General condition of patient.

Consciousness. Body temperature. Forced position of patient with an attack of bronchial asthma, pleural lesions, lung abscess, etc. Central cyanosis, mechanism of its occurrence, diagnostic value. Symptoms of "drum fingers" and "watch glasses."

Nose: changes in the shape of nose, nature of breathing through nose (free, obstructed. Nasal discharge, its nature, amount. Nosebleeds.

Rib cage. Shape of chest: normostenic, hypersthenic asthenic, pathological forms (emphysematous, paralytic, scaphoid rachitis, funnel-shaped). Severity of over- and subclavian fossae, size of the epigastric angle, position of the shoulder blades and the clavicle, ratio of the anterior-posterior lateral dimensions of the chest. Symmetry of the chest (increasing or decreasing of one of halves, local protrusion or depression). Smoothness and bulging of intercostal spaces. Diagnostic value for main bronchopulmonary syndromes.

Curvature of the spine: kyphosis, lordosis, scoliosis, kyphoscoliosis.

Chest circumference, chest excursion in and out.

Breathing: type of breathing (chest, abdominal, mixed), symmetry of respiratory movements (one half lag in breathing), participation in auxiliary muscles breathing, number of breaths per minute, depth of breathing (shallow, deep, including Kussmaul breathing), rhythm respiration (rhythmic, arrhythmic, including Cheyne-Stokes and Biot). Objective signs: difficulties inhalation and exhalation (inspiratory, expiratory and mixed dyspnea, stridor).

Palpation. Method of chest palpation. Detection of painful areas, their localization.

- Determination of chest resistance (elasticity).
Study of voice tremor on symmetrical areas.
Diagnostic value for major bronchopulmonary syndromes.
- Percussion. Comparative percussion, its rules.
Nature of percussion sound in symmetrical areas of the chest in normal and pathological conditions (clear pulmonary sound, dull, dull, boxed, tympanic, dull-tympanic).
Diagnostic value of comparative percussion of the lungs in major bronchopulmonary syndromes.
- Topographic percussion. Topographic lines of the chest. Determination of upper boundaries of the lungs: height of standing tops in front and behind, width of Krenig fields. Determination of lower border of the lungs and mobility of lower edges of the lungs, the causes of changes. Diagnostic value.
4. Auscultation of lungs. Auscultation. Methods and rules of lungs
Rules of auscultation. auscultation. Concept of main, additional (side)
Primary and secondary respiratory noises, mechanisms of their
respiratory sounds. occurrence, diagnostic value. Nature of main
Diagnosis of main respiratory noise in normal state and other
bronchopulmonary pathologies (vesicular, weakened, enhanced,
syndromes. hard, bronchial, amphoric, bronchovesicular,
lack of basic respiratory noise). Diagnostic
value of main bronchopulmonary syndromes.
Wheezing, mechanism of appearance. Dry, low
timbre (bass) and high timbre (treble) wheezing.
Wet wheezings: voiced and unvoiced, small,
medium-large bubble wheezings, their location
and extent.
Effect of coughing, deep breathing and forced
expiration on their appearance and
disappearance. Diagnostic value.
Crepitus, mechanism of formation, differences
from wheezing and pleural friction noise.
Diagnostic value.
Pleural friction noise, mechanism of
appearance, differences between wheezing and
crepitus. Diagnostic value.
Bronchophony, method of determination,
diagnostic value.
5. Instrumental and Laboratory examination of sputum and pleural
laboratory diagnostic punctuate. Examination, microscopy of native
methods of respiratory and stained preparations, bacterioscopy.
diseases. Technique of pleural puncture. Examination of
pleural effusion. Diagnosis of exudates and
transudate.
Concept of fluoroscopy, radiography and
tomography of the lungs. Computed
tomography. Magnetic-nuclear tomography.
Their diagnostic value. _____

			<p>Bronchoscopy, indications and contraindications to bronchoscopy. Diagnostic value of the visual bronchoscopic picture. Concept of biopsy of the bronchus mucous membranes, lungs, pleura, enlarged tracheobronchial lymph nodes. Investigation of bronchoalveolar content.</p> <p>Spirography. Value of functional study of the respiratory system, diagnostics of respiratory failure. Respiratory volumes and their capacity changes in obstructive and restrictive respiratory failure. Tiffno's test. Concept of pneumotachometry and pneumotachography. Concept of computer spirography and study of inspiratory and expiratory volume velocity air flow (loop "flow-volume"). Concept of integral plethysmography of the whole body and its diagnostic value.</p>
	6.	Diagnostic radiology of lungs diseases.	<p>Research methods (basic, additional, special). Radiological anatomy of the lungs, lobar and segmental lung structure, pulmonary pattern. X-ray semiotics of lung diseases. Symptoms of bronchial obstruction. Acute and chronic inflammation in the lungs. Diseases of the pleura (dry and effusion pleurisy, research methods).</p>
Semiotics of cardiovascular diseases.	7.	Questioning, general examination, palpation, percussion in cardiovascular diseases.	<p>Questioning: Main complaints and their pathogenesis.</p> <p>Pain in the heart; mechanism of its occurrence. Nature of pain, its localization irradiation, duration, intensity, communication with excitement, exercise on - night pain. Ways of relief.</p> <p>Dyspnea. Mechanism of "heart" dyspnea. Relation between exercise and body position. Cardiac asthma, time and conditions of occurrence, duration of attacks, their relief. Diagnostic value</p> <p>Palpitations, feeling of heart failure; nature of arrhythmia (constant, paroxysmal), duration of attacks, their frequency, reasons of their appearance and relief.</p> <p>Feelings of pulsation in different parts of the body.</p> <p>Cough, hemoptysis, nature, mechanism of occurrence, diagnostic value.</p> <p>Edema. Its localization, prevalence, severity, time and conditions of occurrence.</p> <p>Value of anamnesis for diagnostic and prognosis of circulatory system diseases.</p> <p>General inspection. General condition of patient. Position of patient. Color of the skin blush, pallor, cyanosis. Differences between central and peripheral cyanosis.</p>

Edema, mechanisms of its occurrence, localization, prevalence, severity (swelling, moderate or pronounced edema). Dropsy cavities.

Examination of the neck: swelling and pulsation of veins (negative and positive venous pulse). Differences between venous and arterial pulsations on the neck. Reasons for their occurrence. Diagnostic value.

Examination of the heart area: heart hump, apical and heart impulse epigastric pulsation. Pathological pulsations in the heart. Diagnostic value.

Palpation. Palpation of apical and cardiac tremors. Characteristics of apical impulse: localization, strength, height, prevalence. Negative apical push. Determination of systolic and diastolic tremor in the heart area. Palpation of the heart base. Palpable examination of epigastric pulsation, its causes (differences in heart, aorta, liver pulsations). Diagnostic value. Palpation of peripheral arteries.

Percussion. Method of determining the boundaries of relative and absolute dullness of the heart, the vascular bundle. Determination of relative dullness configuration of the heart. Diagnostic value of changes in the boundaries of relative and absolute dullness of the heart.

8. Auscultation of heart.
Primary heart sounds.
Heart murmurs. Changes
in pathology.

Auscultation. Method of auscultation of the heart. Auscultation of the heart in different phases of breathing, at different positions of patient, at rest and during physical exertion. Places for heart listening and true projection of its valves on the anterior chest wall. Differences between systole and diastole of the ventricles during auscultation.

Concept of heart tones, the mechanism of their occurrence. Primary tones (I and II tones), additional (III and IV, mitral valve opening tone, systolic click). Main properties of tones: loudness, timbre. Changing tones in pathology: weakening gain, bifurcation, appearance of additional tones. "Rhythm of quail", canter rhythms, pendulum rhythm (embryocardia). Tachycardia, bradycardia, arrhythmia.

Heart murmurs. Mechanism of occurrence. Classification. Differences between organic and functional noises. Ratio of noise to the phases of cardiac activity. Systolic and diastolic noise: protodiastolic, mesodiastolic presystolic, holosystolic, holodiastolic noise. Character, timbre duration of noise. Places for best listening of noises, ways of irradiation. Pericardial friction noise, pleuropericardial

noise. Diagnostic value.

Study of blood vessels. Inspection and palpation of temporal, carotid, radial, popliteal arteries and arteries of foot rear: severity of pulsations, elasticity, crimpiness of artery, presence of seals, aneurysmal expansions. Concept of pulsation of the aorta in the jugular fossa.

Auscultation of carotid and femoral arteries.

Laboratory methods of examination. General principles. Determination of creatine phosphokinase activity (CPK) and MV fraction of C PIC, aspartic and alanine, aminotransferases (AsAT and AlAT), lactate dehydrogenase (LDH) and other enzymes. Diagnostic value of hyperenzymemia.

Determination of cholesterol, triglycerides, LDL, HDL, VLDL. Atherogenic coefficient.

Value of total protein and protein fractions, C-reactive protein, seromucoid, sialic acids, antistreptolysin, antihyaluronidase, antistreptokinase determination. Interpretation of laboratory examination results for vascular heart diseases.

Electrocardiography. Electrocardiography technique. Registration of electrocardiograms in 12 branches. Concept of additional branches. ECG decoding plan. Vector principle of ECG analysis. Changes in electrocardiogram in ventricular and atrial myocardial hypertrophy. Arrhythmias of the heart. Sinus tachycardia, bradycardia, arrhythmia. Atrial, nodular, ventricular extrasystole. Left and right ventricular extrasystoles. Paroxysmal tachycardia. Atrial fibrillation. Definition of heart defibrillation.

Conduction disturbances. Atrioventricular block. Blockade of the right and left branch of its bundle. ECG in ischemic heart disease (angina pectoris and acute myocardial infarction). General concepts of stress-test (bicycle, veloergometry, treadmill test, pharmacological tests). Criteria for diagnosing transient myocardial ischemia induced by a stress test. Holter (daily) ECG monitoring.

Phonocardiography. General concepts of phonocardiography method. Value of this technique for the diagnosis of heart and blood vessels disease. Indications.

Echocardiography. Indications for examination. Concept of diagnostic capabilities of one-dimensional, two-dimensional and Doppler • scanning of the heart and blood vessels. I Principles of diagnosing valve lesions, signs of

		<p>hypertrophy and dilatation of the heart</p> <p>Evaluation of systolic and diastolic function of the heart, local disorders of myocardial contractility. Identification of intracardiac formations. Concept of stress echocardiography. Sphygmography. Diagnostic value.</p> <p>Rheography. Principle of the method, diagnostic value.</p> <p>X-ray examination of the heart. Diagnostic value. Concept about angiography and coronary angiography. Ventriculography.</p> <p>Radionuclide examination methods. Myocardial scintigraphy.</p>
	0.	<p>X-ray methods of heart examination.</p> <p>Radiological diagnosis of the heart and blood vessels diseases. Examination methods and X-ray anatomy of the heart and major vessels in direct and oblique projections. Radiation semiotics of mitral, aortic heart defects (insufficiency, stenosis). Open arterial duct and aortic coarctation. Diseases of the pericardium, myocardium and major <u>vessels</u>.</p>
Semiotics of digestive organs diseases.	11.	<p>Questioning, general examination. palpation, percussion of digestive organs. Main syndromes in digestive diseases.</p> <p>Questioning: main complaints of patients, mechanism of occurrence. Localization, irradiation of pain, its nature, intensity, time of occurrence during the day, duration, relief of pain.</p> <p>Dyspeptic symptoms: difficulty swallowing and passage of food through the esophagus (dysphagia), nausea, belching, heartburn, bloating (flatulence). Detailed characteristics, severity of these phenomena, and relation to food intake, quality and quantity, which provokes and stops dyspeptic symptoms. Mechanisms and diagnostic significance of these symptoms.</p> <p>Appetite: preserved, reduced, increased (polyphagia), completely absent (anorexia). Aversion to food (fat, meat). Dry mouth, bitterness. Unpleasant taste, lack of taste. Salivation.</p> <p>Defecation: frequency per day, stool volume, color, shape, texture, the presence of particles of undigested fiber, food, blood impurities, mucus. Causes, diagnostic value of various types of diarrhea. Steatorrhea. Constipation, mechanism of appearance. Diagnostic value.</p> <p>Bleeding: Signs of esophageal, gastric, intestinal bleeding. Diagnostic value.</p> <p>Weight loss. Causes, diagnostic value.</p> <p>Value of anamnesis for the diagnosis and prognosis of diseases in the digestive system.</p> <p>Inspection. Examination of the oral cavity, pharynx, tonsils, posterior pharyngeal wall; condition of oral mucosa, teeth.</p>

- Tongue: moisture, color, nature and severity of papillary layer, presence and nature of plaque on the tongue.
- Examination of the abdomen in the vertical and horizontal position of patient. Division of the abdomen into topographic areas. Abdomen configuration. Movement of the abdominal wall during act of breathing. Development of venous collaterals on the anterior abdominal wall and side walls. Hernia formation. Visible peristaltic and antiperistaltic of the stomach and the intestine. Measurement of abdominal circumference.
- Percussion. Percussion of the abdomen, nature of percussion sound. Definition of free and encumulated fluid in the abdominal cavity. Method of determining ascites in vertical and horizontal position of patient.
- Palpation. Method of superficial orienting palpation of the abdomen. Condition of the skin and subcutaneous tissue of abdomen, identification of hernias and muscle discrepancies of the anterior abdominal wall. Identification of the skin hypersensitivity zones (Zakharyin-Ged zones) of painful abdominal sites on palpation. Definition of resistance and muscle protection. Diagnostic value of this symptom. Symptom irritation of the peritoneum by Shchetkin-Blumberg.
- Deep methodical sliding palpation of the abdomen according to the method of V.P. Obraztsov and N.D. Strazhesko. Four points of palpation. Sequence of intestinal palpation. Palpation data: location, mobility, tenderness, consistency, size of the palpable segment of intestine, nature of surface, presence or absence of rumbling. Determination of lower limit of the stomach by percussion, ausculto percussion, ausculto affriction and by Obraztsov's method (detection of noise swash in the stomach).
- Auscultation. Auscultation of intestinal noise. Diagnostic value. Auscultation of friction noise of the peritoneum.
12. Questioning, general examination, percussion and palpation of patients with diseases of the liver and biliary tract.
- Questioning. Main complaints, mechanism of their occurrence.
- Pain: localization, irradiation, nature, duration, condition of occurrence. Relief of pain. Mechanism of pain occurrence, its diagnostic value.
- Dyspeptic symptoms: nausea, vomiting, belching, bloating and rumbling in the stomach, changes in appetite and taste in the mouth, changes in stool. _____

Jaundice: discoloration of the skin, urine, feces. Pruritus. Diagnostic value. Increase of the abdomen size.

Value of anamnesis for the diagnosis and prognosis of the liver or biliary tract disease.

Examination. General condition of patient. Consciousness. Various eating disorders of patient. Condition of the skin, xanthelasma, spider veins, liver palms, hemorrhages, stretch marks. Jaundice, classification, mechanism of occurrence. Diagnostic value.

Symptom of "drum sticks" and "watch glasses", gynecomastia, impaired hair growth, erythema of the palms. Diagnostic value.

Examination of the abdomen: uniform increase in abdomen (ascites). Limited protrusion of the anterior abdominal wall (enlarged liver, spleen, etc.). State of the umbilical ring. Presence of the extended venous chain on the anterior abdominal wall.

Percussion of the abdomen. Determination of ascites. Percussion of the boundaries of absolute dullness (upper and lower) of the liver. Percussion of the spleen, determining its size.

Palpation. Determination of pain and tension of the muscles of the abdominal wall in the right hypochondrium region and in the choledochopancreatoduodenal zone. Method of palpation of the liver. Characteristics of the liver edge and its surface. Soreness of the liver. Methods of liver palpation for ascites. Determination of liver size. Methods of palpation of the gallbladder and characteristics of its results under its increase. Symptoms Ortner; Ker, Myussi-Georgievsky (right-sided phrenicus symptom), Lepene's symptom.

Palpation of the spleen. Diagnostic value of increased size of the spleen.

Auscultation. Presence of peritoneal friction noise in the right and left hypochondrium. Reasons for appearance. Pain, mechanism of appearance, localization, irradiation, nature. Dyspeptic symptoms: nausea, vomiting, flatulence, diarrhea, constipation. Their detailed description.

Examination, palpation and percussion of the abdomen. Their importance for diagnosis of pancreas diseases.

X-ray examination of the gastrointestinal tract (general principles of value). Concept of overview radiography of the abdominal cavity, study of artificial contrasting of the esophagus, stomach and intestines, irrigoscopy and other

J. Laboratory methods of examining digestive organs. Main syndromes of digestive diseases.

methods. Their diagnostic value. Preparation for X-ray examination.

Endoscopic examination methods. Concept of esophagoscopy, gastroduodenoscopy, colonoscopy, sigmoidoscopy. Indications, contraindications and prepare for research.

Value of biopsy in diagnosis of lesions of the gastrointestinal tract. General concept of cytological and histological diagnostics.

Laparoscopy (general notion).

Study of gastric secretion. Method of fractional gastric sensing. Concept of basal and stimulated gastric secretion (histamine, pentagastrin, parenteral stimuli). Study of the physical properties of gastric contents (quantity, color, smell, impurities). Chemical research, determination of total acidity, free and bound hydrochloric acid by titration method.

Evaluation of acid-forming function of the stomach on the production of hydrochloric acid, concept of debit-hour N A 1; basal, submaximal and maximal secretion and their calculating, peak acid output. Diagnostic value. Concept of determining intragastric pH (pH-metry). Long-term pH monitoring of gastric contents. Study of the enzyme-forming function of the stomach. Pepsin determination. Reaction to lactic acid and blood. General presentation of tubeless methods for studying gastric secretion.

Methods for detecting H. pylori (cytological, histological, immunological methods, urease test). Diagnostic value

Coprological study. Collecting feces for examination. Physical properties of feces (daily amount, consistency, shape, color, smell of feces, impurities, determination of fecal masses). Chemical research, determination of hidden blood (benzidine, guayac samples), stercobilin and bilirubin in feces. Microscopic examination of foodborne elements (muscle fibers, connective tissue, fat, its cleavage products, vegetable fiber and starch). Cellular elements epithelium, leukocytes, erythrocytes, macrophages, tumor cells, presence of protozoa. Diagnostic value of coprological research.

Method for studying fats absorption, proteins and carbohydrates in the small intestine (general concepts).

Laboratory methods for study of liver function, reflecting its participation in pigment, carbohydrate, protein, fat and mineral metabolism. Enzymes analysis (aminotransferase, aldolase, γ -glutamyltranspeptidase, alkaline phosphatase,

		<p>lactate dehydrogenase , cholinesterase).</p> <p>Examination of neutralizing and excretory functions of the liver (sample with bromsulfalein). Diagnosis of the main biochemical syndromes (cytolytic, mesenchymal-inflammatory, cholestatic syndrome of small hepatocellular insufficiency).</p> <p>Immunological research methods. Concept of markers of hepatitis viruses.</p> <p>X-ray examination: concept of cholecystography, intravenous cholegraphy, cholangiography, splenoportography, pneumoperitoneum. Preparation of patient for x-ray examination of the biliary tract. Concept of endoscopic retrograde cholangiopancreatography (ERCP).</p> <p>Angiographic diagnostic capabilities, indications and contraindications. Computed tomography (general ideas about method).</p> <p>Concept of radionuclide studies of the liver (hepatography, radionuclide scanning of the liver).</p> <p>Ultrasound examination of the liver, spleen and biliary tract. General ideas about the diagnostic capabilities of method. Preparation for examination.</p> <p>Duodenal sounding. Sensing technique. Physical properties of duodenal contents, chemical, microscopic and bacteriological research. Modern modifications of the method: multi-stage and chroma-diagnostic probing. General ideas about puncture biopsy of the liver. Laparoscopy (indications and contraindications).</p>
	14.	<p>X-ray methods of digestive organs examination.</p> <p>Methods of X-ray examination of the digestive system. X-ray anatomy of the esophagus, stomach, intestines. X-ray semiotics of esophagus diseases (achalasia, stenosis, atresia, diverticula, foreign bodies, varicose veins), stomach (ulcer, foreign bodies, pyloric stenosis, tumors).</p>
Semiotics of kidneys and urinary organs diseases.	15.	<p>Questioning, general examination, palpation, percussion of patients with diseases of the kidneys and urinary tract. Syndromes of urinary system diseases.</p> <p>Questioning. Main complaints and their pathogenesis.</p> <p>Edema. Mechanism of occurrence. Localization, time of occurrence, factors contributing to the increase and decrease of an edema. Differences of renal edema and edema of another origin.</p> <p>Pain in the lumbar region, lower abdomen and along the ureters. Renal colic.</p> <p>Urinary disorders. Dysuria, oliguria, polyuria, nocturia, poliuria, strangury.</p> <p>Headaches. Dyspnea. Decrease in vision.</p>

Dyspeptic symptoms. Pruritus. Bleeding.
Value of anamnesis in diagnosing diseases of the kidneys and urinary tract.

Inspection. Patient with kidney disease. Features of edema distribution and their difference from other origin. Presence of scratching and urea crystals on the skin. Patient with uremia. Eclamptic cramps. Swelling, bulging, asymmetry in the lumbar region. Presence of limited bulging in the suprapubic area.

Percussion. Definition of Pasternack's symptom, its diagnostic value. Determination of the upper boundary of the bladder by percussion.

Palpation. Method of palpation of the right and left kidney. Omission, dislocation, increase and tenderness of the kidneys. Examination of pain points, characteristic for urinary tract diseases.

Auscultation. Technique of listening to the renal arteries. Detection of noise in stenosis of the renal arteries, its diagnostic value. ^ ^ ^ ^ _

16. Laboratory and instrumental methods of examining patients with urinary diseases.

Laboratory examination methods. General urine test. Relative urine density, urine response, clarity, color, odor, etc. Proteinuria, glucosuria, bilirubinuria: urobilinuria, acetonuria, their diagnostic value. Microscopic examination of urinary sediment and its diagnostic value. Urine test according to Nechiporenko, Addis-Kakovsky. Bacteriological test of urine. Value of urine density investigation to assess the functional state of the kidneys. Zimnitsky's test, Hypostenuria. Isostenuria. Nocturia. Diagnostic value. Concept of methods for determining kidneys partial function. Reberg's probe, Tareev's probe. Their diagnostic value. Determination of urea, creatinine, residual nitrogen, protein and protein fractions, lipids, electrolytes in the blood serum. Their diagnostic value.

X-ray examination. Overview shot of the kidneys. Intravenous urography and retrograde urethrography, nephroangiography.

Concept of bladder catheterization. Cystoscopy. Ultrasound examination of the kidneys and bladder.

Radioisotope renography and kidney scan.

Concept of biopsy, its diagnostic value. Features of the fundus changes in kidney diseases.

7. Diagnostic radiology of patients with kidney and urinary tract diseases.

X-ray anatomy of the liver, kidneys. Examination methods. Anomalies in development. X-ray semiotics diseases of the

			liver, kidneys, ureters, and bladder. Cysts and kidney tumors. Urolithiatic disease.
Semiotics of hematopoietic disease	18.	Questioning, examination, palpation, percussion of patients with hematopoietic disease.	<p>Questioning. Main complaints of patients.</p> <p>Pain in the throat, bones, right and the left hypochondrium, nature of pain. Growing causeless "general weakness", excessive sweating.</p> <p>Bleeding. Bleeding from the nose, gums, gastrointestinal tract, uterus of other organs. Pruritus. Fever.</p> <p>Value of the anamnesis in diagnosing diseases of the blood system. Drug, physical, chemical and other factors of chronic intoxication (lead, mercury, amidopyrine, butadione, sulfonamides, etc.), radiation exposure, heredity.</p> <p>General inspection. Changes in color of the skin and mucous membranes. Increased regional lymph nodes. Bruising, petechiae. Changes in joints (with hemophilia).</p> <p>Percussion. Soreness during percussion. Determination of the liver and spleen size by percussion.</p> <p>Palpation. Palpation of superficial lymph nodes, and size, texture, mobility, skin cohesion with local tissues and among themselves, the condition of the skin above them. Palpation of enlarged lymph nodes in the abdominal cavity. Palpation of the liver and the spleen.</p>
Semiotics of some endocrine diseases.	19.	Questioning, general examination, palpation, percussion of patients with endocrine diseases.	<p>Questioning. Complaints, mechanism of their occurrence.</p> <p>Weakness, weight loss, obesity, increased thirst, changes in appetite, fever, increased excitability, discoloration of the skin.</p> <p>Value of the anamnesis for diagnosis and prognosis of endocrine system diseases.</p> <p>General inspection. Patient with Grave's disease, myxedema, diabetes mellitus, Cushing's disease and syndrome, acromegaly, adrenal insufficiency, obesity, beriberi.</p> <p>Palpation. Diagnostic value. Palpation of the thyroid gland.</p>
6 semester			
Respiratory diseases.	1.	Pneumonia. Etiology. Pathogenesis. Clinical differences between lobar and local pneumonia. Diagnosis. Bronchoectatic disease.	<p>Symptoms of pneumonia. Mechanism of clinical symptoms occurrence. Methods of clinical, laboratory and instrumental diagnosis of these diseases. Changes in blood tests in pneumonia.</p> <p>Value of radiological and bronchoscopic research in diagnosis of lungs diseases.</p>
	2.	Bronchitis. Classification.	Symptoms of acute and chronic bronchitis. Definition of COPD.

Cardiovascular diseases.	Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	Bronchiectasis, main symptoms, mechanism of their occurrence. Lung abscess, clinical picture, laboratory and instrumental diagnosis. Research value of sputum test in pulmonology. Emphysema. Definition of pulmonary heart disease. Modern methods of laboratory and instrumental diagnostics. Value of Doppler's cardiography in diagnostic of pulmonary heart disease._____
	Bronchial asthma. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	Symptomatology of bronchial asthma. Astmatic state: clinical symptoms, diagnostic, emergency care.
	Emphysema. Respiratory failure. Pulmonary heart disease. Classification. Etiology. Pathogenesis. Clinical symptoms. Diagnosis._____	Concept of respiratory function insufficiency. Spirography, Method of a record.
	Arterial hypertension. Etiology. Pathogenesis. Classification. Diagnosis. Clinical symptoms. Complications of AH.	Symptoms of arterial hypertension. Hypertensive disease, stages, clinical picture, Diagnosis, changes in fundus. Symptomatic hypertensions. Measurement of blood pressure. Hypertonic crisis: clinical picture, diagnosis. Emergency care in hypertensive crisis.
	IHD. Etiology. Pathogenesis. Classification. Clinical symptoms. Diagnosis. Acute myocardial infarction.	Angina pectoris syndrome and cardialgy. Coronary artery disease: angina pectoris. Semiotics and diagnostic. Value of ECG. General concept of load tests (veloergometry, treadmill-test, pharmacological probes). Myocardial infarction: clinical picture, diagnosis, complications. ECG - indicators. Value hyperenzymia, hypercholesterinemia (tryglicerides, HDLP, LDLP, VLDLP). Emergency care in myocardial infarction, <u>primary prevention.</u>
	7. Acute rheumatic fever. Etiology. Pathogenesis. Clinical symptoms. Mitral stenosis. Mitral insufficiency. Tricuspid valve defects: stenosis and insufficient. Aortic stenosis. Aortic insufficiency.	Definition of rheumatism, clinical manifestations, laboratory diagnostics. Mitral heart defects: stenosis of the left atrioventricular orifice, mitral valve insufficiency. Combined lesions. Changes in hemodynamics and compensation mechanisms. Semiotics and diagnostics. Diagnostic value of echocardiography. Value of determining total protein and protein fractions, C-reactive protein, antistreptolysin, antihyaluronidase. Aortic heart defects: aortic stenosis, aortic valve insufficiency. Tricuspid heart defects: stenosis of the right atrioventricular orifice, tricuspid valve insufficiency. Symptoms, hemodynamic changes,_____compensation <u>mechanisms.</u>

			Echocardiography. Indications for study. Concept of diagnostic capabilities of one-dimensional, two-dimensional and Doppler scan of the heart and blood vessels.
	8.	Heart failure. Classification. Acute heart failure.	Blood circulation insufficiency, acute and chronic heart failure. Left ventricular failure. Cases, mechanisms of occurrence. Clinical symptoms of cardiac asthma and pulmonary edema. Emergency care. Right ventricular failure. Stages of chronic failure. Vascular failure: faint, collapse.
Digestive organs diseases	9.	Gastritis. Peptic ulcer of the stomach and duodenum. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Symptomatology of chronic and acute gastritis, peptic ulcer of the stomach and duodenum. Main symptoms of stomach dyspepsia, hypersecretoric, hyposecretoric syndromes of violation of a stomach function. Features of pain syndrome in peptic ulcer in depend of ulcer localization. Laboratory, x-ray and instrumental diagnostic of the stomach and duodenum diseases. Gastrointestinal bleeding: clinical manifestation, emergency aid.
	10.	Chronic hepatitis. Liver cirrhosis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Symptomatology of hepatitis and liver cirrhosis, cholecystitis. Main liver syndromes: portal hypertension. jaundice, liver failure, hepatolienal syndrome. Mechanisms of their occurrence. Types of jaundice. Clinical, laboratory and instrumental diagnosis of the liver and bile ducts diseases.
	11.	Chronic pancreatitis. Chronic cholecystitis. Intestine diseases.	Symptoms of pancreatitis, enterocolitis. Methods of clinical and instrumental examination, endosecretory function of the pancreas. Investigation of the blood enzymes, lipid metabolism, feces. Value of biopsy in diagnosing gastrointestinal defeats. Main symptoms of intestine dyspepsia.
Urinary diseases	12.	Acute and chronic glomerulonephritis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Symptomatology of acute and chronic glomerulonephritis, chronic pyelonephritis. Major syndromes in kidney disease: edematous syndrome, nephrotic syndrome, renal arterial hypertension, renal eclampsia, renal failure. Methods of clinical, laboratory and instrumental diagnosis.
	13.	Acute and chronic pyelonephritis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Main clinical syndromes in kidney diseases: urinary, hypertensive, nephrotic, nephritic, renal failure. Semiotics, developmental mechanisms and diagnostics: blood urea and creatinine. Proteinuria, urine density, urine reaction. Glycosuria, acetonuria, their diagnostic meaning. Nechyporenko urine examination. Value of urine density research to assess the functional state of the kidneys. Zimnitsky test. I lypostenuria. Isosenuria. Nocturia.
1 Iematopoietic	14.	Anemia.	Symptomatology of blood diseases. Anemia

and endocrine diseases..		Hematoblastosis.	and leukemia. Hemorrhagic syndrome. Laboratory and instrumental methods of research. Clinical blood test. Diagnostic value of changes: leukocytosis, leukopenia, increased ESR, leukemoid reaction. Basic methods of the anti-clotting blood systems. Concept of puncture of the bone marrow, lymph nodes, trepanobiopsy.
	15.	Diabetes mellitus.	Main symptoms and methods of examining patients with diseases of the endocrine system and metabolic disorders (diabetes). Laboratory and instrumental methods of examination. Determination of glucose in blood and urine, acetone in urine. Glycemic curve. Main indicators of fat and carbohydrate metabolism.
Emergency conditions in clinic of internal diseases.	16.	Sudden death. Development mechanisms. Principles of first aid. Cardiogenic shock. Pulmonary edema. Acute respiratory failure.	Signs of sudden death, mechanisms of its development. Signs of emergency care. Cardiogenic shock: clinical picture, diagnosis, treatment. Pulmonary edema: clinical presentation, diagnosis, treatment. Acute respiratory failure: clinical picture, diagnosis, treatment.
	17.	Quincke's edema. Anaphylactic shock.	Quincke's edema: clinical picture, diagnosis, treatment. Anaphylactic shock: clinical picture, diagnosis, treatment.

5. Educational technologies

Traditional classes are combined with the analysis of patient and his/her medical history according to the topics of the discipline.

- Testing.
- Multimedia lectures.
- Course work.
- Independent work with literature.
- Supervision of patients in hospital departments.

in order to implement an individual approach to teaching students undergoing special learning process within the framework of an individual work plan, the study of this discipline is based on the following possibilities: providing out-of-class work with students including in the electronic educational environment using appropriate software equipment, forms of distance learning, possibilities of Internet resources, and individual consultations.

5.1. Active education methods

Analysis in specific situations (role-playing games)

Role-playing game in internal diseases propaedeutics is the innovative method of working with students, which is aimed at stimulating independent and creative activity of students. In the course of the game, it is possible to thoroughly analyze all possible nuances of the problem, to determine students training level. Role-playing games are of instructive and supervising nature and are held during practical classes in the main sections of the discipline. Before the game starts, its tasks are read out (clinical medical history). The lecturer suggests students to take part in the game, if no one wishes, the participants are chosen by the lecturer. The reviewers of the participants are appointed

only by the lecturer from among the most successful students. The results of the game are summed up. The correctness of actions within the task, timeliness of reaction, and level of knowledge are taken into account.

6th semester

1. Diseases of the respiratory system.
2. Diseases of the cardiovascular system.
3. Diseases of the digestive system.
4. Diseases of the urinary system.
5. Diseases of the hematopoietic and endocrine system

6. Educational and methodological support of students' out-of-class work.
Forms of current and interim assessment.

6.1. Plan of students' out-of-class work

Week №	Topic	Out-of-class work <i>type should correspond to one specified in table 4.1)</i>	Task <i>(Learn..., complete..., solve..., make...)</i>	Recommended literature	Amount of hours
1	Medical ethics and deontology. Russian schools of internal medicine Scheme of medical history. Diagnosis, types of diagnoses.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise medical history writing scheme. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html	5
2	General examination. Methodology of general examination.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise medical principles and methods of general inspection. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html	5
3	Questioning in respiratory diseases. General examination, palpation, percussion in respiratory diseases..	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise inspection, palpation of the chest, percussion of the lungs. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436013.html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4
4	Auscultation of lungs. Rules of auscultation. Primary and secondary-respiratory sounds. Diagnosis of main bronchopulmonary syndromes.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise rules of lungs auscultation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970439625.html	4
5	Instrumental and laboratory diagnostic methods of respiratory	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise instrumental and laboratory investigation methods of patients with respiratory diseases. To answer self-control	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html	4

	diseases.		questions.	html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	
6	Diagnostic radiology of lungs diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise methods of the lungs radiodiagnostic. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4
7	Questioning, general examination, palpation, percussion in cardiovascular diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	5
8	Auscultation of the heart. Main heart tones. Heart murmurs. Changes in pathology	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	5
9	Laboratory methods of diagnostic in cardiology. Syndromes of cardiovascular	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise laboratory investigation methods of the cardiovascular system. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html	4

	diseases.			2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	
10	X-ray methods of heart examination	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise methods of the blood circulation organs radiodiagnostic. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	4
11	Questioning, general examination, palpation, percussion of digestive organs. Main syndromes of in digestive diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the digestive system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 P- http://www.studmedlib.ru/book/ISBN9785970422793.html	4
12	Questioning, general examination, percussion and palpation of patients with liver and bile ducts diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the digestive system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 P- http://www.studmedlib.ru/book/ISBN9785970422793.html	4
13	Laboratory methods of examining digestive organs. Main syndromes of	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise laboratory investigation methods of the digestive system. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html	4

	digestive diseases.			html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 P- http://www.studmedlib.ru/book/ISBN9785970422793.html	
14	X-ray methods of digestive organs examination.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise methods of the digestive organs radiodiagnostic. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 P- http://www.studmedlib.ru/book/ISBN9785970422793.html	4
15	Questioning, general examination, palpation and percussion of patients with kidneys and urinary organs diseases. Syndromes of urinary diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the urinary system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2013. - 184 p. http://www.studmedlib.ru/book/ISBN9785970427170.html	3
16	Laboratory and instrumental methods of examining patients with kidneys and urinary diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise laboratory investigation methods of the urinary system. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2013. - 184 p. http://www.studmedlib.ru/book/ISBN9785970427170.html	
17	Diagnostic radiology of patients with	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise methods of the urinary organs radiodiagnostic. To answer self-control	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p.	

1	kidneys and urinary diseases		questions.	http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2013. - 184 p. http://www.studmedlib.ru/book/ISBN9785970427170.html	1
18	Questioning, general examination, palpation, percussion of patients with hematopoietic diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the hematopoietic organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.htm!	4
19	Questioning, general examination, palpation, percussion of patients with endocrine diseases.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of investigation patients with endocrine diseases. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmediib.ru/book/ISBN9785970436011.html	3
1	Pneumonia. Etiology. Pathogenesis. Clinical differences between lobar and local pneumonia. Diagnosis. Bronchoectatic disease	Preparing for in-class work	To study theoretical materia! within the topic of the lesson. To revise practice skills of the respiratory system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Puimonology: Textbook / Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4
2	Bronchitis. Classification. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the respiratory system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Pulmonoiogy: Textbook / Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4

				html	
	Bronchial asthma. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the respiratory system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook / Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4
4	Emphysema. Respiratory failure. Pulmonary heart disease. Classification. Etiology. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the respiratory system investigation. To answer self-control questions.	i. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Pulmonology: Textbook / Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 176 p. http://www.studmedlib.ru/book/ISBN9785970419625.html	4
5	Arterial hypertension. Classification. Etiology. Pathogenesis. Clinical symptoms. Complication of AH.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	5
6	IHD. Etiology. Pathogenesis. Classification. Clinical symptoms. Diagnosis. Acute myocardial infarction	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	5

7	J Acute rheumatic fever. Etiology. Pathogenesis. Clinical symptoms. Mitral stenosis. Tricuspid valve defects: stenosis and insufficient. Aortic valve stenosis. Aortic valve insufficient.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970419632.html	5
8	Heart failure. Classification. Acute heart failure.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the blood circulation organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2011. 272 p. http://www.studmedlib.ru/book/ISBN9785970439632.html	5
9	Gastritis. Peptic and duodenal ulcer. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the digestive system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 p. http://www.studmedlib.ru/book/ISBN9785970422793.html	4
10	Chronic gastritis. Cirrhosis of the liver. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the digestive system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 376 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 p.	4

				P- http://www.studmedlib.ru/book/ISBN9785970422793.html	
11	Chronic pancreatitis. Chronic cholecystitis. Diseases of the intestine.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the digestive system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2012. 160 P- http://www.studmedlib.ru/book/ISBN9785970422793.html	1
12	Acute and chronic pyelonephritis. Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the urinary system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2013.- 184 p. http://www.studmedlib.ru/book/ISBN9785970427170.html	4
13	Acute and chronic glomerulonephritis . Classification. Pathogenesis. Clinical symptoms. Diagnosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the urinary system investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. http://www.studmedlib.ru/book/ISBN9785970436011.html 2. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapkina O.M. Moscow: GEOTAR-Media, 2013. - 184 p. http://www.studmedlib.ru/book/ISBN9785970427170.html	4
14	Anemia. Hemoblastosis.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of the hematopoietic organs investigation. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p.	4
15	Diabetes mellitus.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of investigation patients with endocrine diseases.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p.	4

			To answer self-control questions.		
16	Sudden death. Development mechanisms. Principles of the first aid. Cardiogenic shock. Pulmonary edema. Acute respiratory failure.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of investigation patients. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p.	·i
17	Quincke's edema. Anaphylactic shock.	Preparing for in-class work	To study theoretical material within the topic of the lesson. To revise practice skills of investigation patients with endocrine diseases. To answer self-control questions.	1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p.	4

6.2. Instructional guidelines on organizing students' out-of-class work

Students' out-of-class work is carried out in accordance with methodological recommendations of the department for the discipline Propaedeutics of Internal Diseases:

1. Rakhmatullov F.K., Burmistrova L.F. Semiotics of Internal Organs: Guidelines for Practical Exercises on Propaedeutics of Internal Organs. Penza: PSU Publ., 2016. p.
2. Rakhmatullov F.K., Burmistrova L.F. Diseases of the Respiratory and Cardiovascular Systems: Guidelines for Practical Exercises on Propaedeutics of Internal Organs. Penza: PSU Publ., 2016. p.
3. Rakhmatullov F.K., Burmistrova L.F. Diseases of the Digestive, Urinary, Hematopoietic and Endocrine Systems: Guidelines for Practical Exercises in Hospital Therapy. Penza: PSU Publ., 2016. p.
4. Rakhmatullov F.K., Burmistrova L.F. Emergency Conditions in Clinical Picture of Internal Diseases: Guidelines for Practical Exercises on Propaedeutics of Internal Diseases. Penza: PSU Publ., 2016. p.

6.3. Materials to carry out current and interim assessment of students' knowledge

Competence mastering assessment

№	Assessment type	Monitored topics (sections)	Competences that include components under assessment
1	Tests checking	Sections № 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	GC-1, GC-8, PC-5, PC-15, PC-17
2	Practical skills checking	Sections № 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	GC-1, GC-8, PC-5, PC-15, PC-17
	Interview	Sections № 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	GC-1, GC-8, PC-5, PC-15, PC-17
4	Course work	Sections № 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	GC-1, GC-8, PC-5, PC-15, PC-17

Sample test variant

1. BOTTOM BORDER OF THE LUNGS IN ANTERIOR-AXILLARY LINE IN HEALTHY MAN IS LOCALIZED AT THE LEVEL OF:

- 1) Fifth rib
- 2) Sixth rib
- 3) Seventh rib
- 4) Eighth rib

2. THE STANDING HEIGHT OF THE LUNGS APEX IN HEALTHY MAN IN FRONT SURFACE IS:

- 1) 1-2 cm
- 2) 3-4 cm
- 3) 5-6 cm
- 4) 6-7 cm

3. BOTTOM BORDER OF THE LUNGS OMMITS IN:

- 1) exudative pleuritis
- 2) pneumosclerosis
- 3) emphysema
- 4) lower lobe pneumonia

4. VOICE TREMOR INCREASES IN:

- 1) pneumothorax

- 2) hydrothorax
- 3) compaction of lung tissue
- 4) emphysema

5. WHEN PERFORMING GAMMA SONORITY IN THE NORM, THE LOUDEST SOUND IS DETERMINED:

- 1) under the scapula
- 2) upper third of interscapular space
- 3) on the shoulder
- 4) above the shoulder blade

6. A CUTTED PERCUSSION SOUND IS DETERMINED IN:

- 1) emphysema
- 2) accumulation of fluid in the pleural cavity
- 3) focal pneumonia
- 4) cavity in the lung

7. BOX SOUND IS CHARACTERISTIC FOR:

- 1) compaction of lung tissue
- 2) hydrothorax
- 3) pulmonary emphysema
- 4) lung abscess

8. TYMPANICAL PERCUSSION SOUND DETERMINES IN:

- 1) emphysema
- 2) accumulation of fluid in the pleural cavity
- 3) focal pneumonia
- 4) pneumothorax

9. A REASON FOR OCCURRENCE OF WET WHEEZINGS IS:

- 1) viscous secret in the bronchi
- 2) bronchospasm
- 3) moistening of the walls of the alveoli
- 4) pleural thickening

10. PATHOLOGICAL BRONCHIAL BREATH IS LISTENED IN

- 1) bronchial asthma
- 2) bronchitis
- 3) lobar pneumonia in stage of hepatization
- 4) obstructive atelectasis

Criteria for assessing test

"5" - "excellent" mark - 91% or more correct answers to test tasks;

"4" - "good" mark - 81-90% correct answers to test tasks;

"3" - "satisfactory" - 71-80% correct answers to test tasks;

"2" - "unsatisfactory" - 70% or fewer correct answers to test tasks.

The test is considered correctly solved if there are 2/3 correct answers.

Sample practical skills tasks

1. Systematic interview of patient
2. General examination. Palpation of the lymph nodes. Examination and palpation of joints.
3. Examination of the chest.
4. Palpation of the chest.
5. Comparative percussion of the lungs.
6. Topographical percussion of the lungs.
7. Auscultation of the lungs.

8. Examination of the heart area.
9. Palpation of the heart.
10. Percussion of relative and absolute dullness of the heart, the vascular bundle.
- I 1. Auscultation of the heart.

Criteria for assessing practical skills

- 15 points** - 91-100% correctly performed tasks.
13 points - 81-90% correctly performed tasks.
12 points - 71-80% correctly performed tasks.
II points - 61- 70% correctly performed tasks.
0 points - 60% or fewer correctly performed tasks.

Sample exam questions

1. Focal pneumonia. Semiotics and diagnosis.
2. Lobar pneumonia. Semiotics and diagnosis.
3. Chronic bronchitis. Semiotics and diagnosis.
4. Emphysema of the lungs. Semiotics and diagnosis.
5. Bronchial asthma. Semiotics and diagnosis.
6. Abscess of the lungs. Semiotics and diagnosis.
7. Bronchoectasis disease.. Semiotics and diagnosis.
8. Pleurisy (dry, exudative). Semiotics and diagnosis.
9. Chronic pulmonary heart disease. Semiotics and diagnosis.
10. Respiratory failure. Classification. Semiotics and diagnosis.
11. Rheumatic disease. Semiotics and diagnosis.

Criteria for assessing answers to theoretical questions

An examination card includes 3 questions

35-40 points	a student deeply understands the material studied, answers clearly and comprehensively, knows how to evaluate facts, independently argues, is able to substantiate conclusions and explain them in a logical sequence
29-34 points	a student understands the material well, cannot substantiate some conclusions theoretically, makes mistakes in reasoning
24-28 points	a student has a general idea of the topic, but cannot logically substantiate his/her thoughts
23 points or less	a student's answer is partially correct, serious mistakes in clarifying the material are made
0 points	a student gives no answer

- **"excellent"** mark is given to students, if the total amount of rate points is 87-100
- **"good"** mark is given to students, if the total amount of rate points is 73-86
- **"satisfactory"** mark is given to students, if the total amount of rate points is 60-72
- **"unsatisfactory"** mark is given to students, if the total amount of rate points is less than 60

Sample topics of course work

Course work presupposes writing an educational medical history.

1. Pneumonia
2. Acute bronchitis
3. CAD. Myocardial infarction
4. Peptic ulcer disease.

5. Chronic pyelonephritis.

Description of indications and criteria of assessment

The mark for the course work is composed of rating for writing and rating for passing course work. Rating for writing course work is determined as follows:

52-60 points	The paper fully meets the requirements and scheme of writing course work. The paper is complete, literate, and logical. The student uses modern medical terminology. The student is able to consciously and quickly transform knowledge gained in characterizing theoretical, clinical, diagnostic, and treatment aspects of therapy.
44-51 points	The paper fully meets the requirements and scheme of writing course work. The paper is complete, literate, and logical. The student uses modern medical terminology. The student follows the logic of presentation, highlights important issues, consciously uses scientific concepts, clinical symptoms, diagnostic data, basic treatment methods, but makes minor mistakes.
36-43 points	The paper meets the requirements and scheme of writing course work. The student makes mistakes in using definitions, interpreting symptoms, applying methods of diagnosis and/or treatment.
35 or fewer	The material is poorly presented, mistakes in definitions are made. Significant mistakes in analyzing and presenting clinical situation are made. The paper requires amendments, corrections. The student partially describes the results of clinical examination of patient, does not understand relations between sections. The student makes mistakes in interpreting clinical symptoms, diagnosis and treatment of patient. Content of course work shows the pathology of curated patient, but at same time poor understanding and knowledge of the essence of pathology are seen. Content of course work does not show pathology of curated patient

Rating for passing course work is determined as follows:

35-40 points	The student deeply understands the material studied, answers clearly and comprehensively, independently argues, is able to evaluate facts, substantiate conclusions and explain them in a logical sequence.
30-34 points	The student understands the material, answers clearly and comprehensively, independently argues, is able to evaluate facts, substantiate conclusions and explain them in a logical sequence, but makes some general mistakes
24-29 points	The student's answer has some drawbacks, the material is partially covered, there are mistakes in reasoning, a student is not able to theoretically justify some conclusions

- "excellent" mark is given to students, if the total amount of rate points is 87-100
- "good" mark is given to students, if the total amount of rate points is 73-86
- "satisfactory" mark is given to students, if the total amount of rate points is 60-72
- ® "unsatisfactory" mark is given to students, if the total amount of rate points is less than 60

7. Educational, methodological and informational means provided for the discipline (module) Propaedeutics of Internal Diseases

a) basic literature:

1. Propaedeutics of Internal Diseases. Ivashkin V. T., Okhlobystin A. V. Moscow: GEOTAR-Media, 2016. 176 p. <http://www.studmedlib.ru/booMSBN9785970436011.html>

b) additional literature:

1. Propaedeutics of Internal Diseases. Nephrology: Study Guide. Ivashkin V.T., Drapldna O.M. Moscow: GEOTAR-Media, 2013. 184 p.
<http://www.studmedlib.ru/book/ISBN9785970427170.html>
2. Propaedeutics of Internal Diseases. Gastroenterology: Study Guide. Ivashkin V.T., Drapldna O.M. Moscow: GEOTAR-Media, 2012. 160 p.
<http://www.studmedlib.ru/book/ISBN9785970422793.html>
3. Propaedeutics of Internal Diseases. Cardiology: Textbook. Ivashkin V.T., Drapldna O.M. Moscow: GEOTAR-Media, 2011. 272 p.
<http://www.studmedlib.ru/book/ISBN9785970419632.html>
4. Propaedeutics of Internal Diseases. Pulmonology: Textbook. Ivashkin V.T., Drapldna O.M. Moscow: GEOTAR-Media, 2011. 176 p.
<http://www.studmedlib.ru/book/ISBN9785970419625.html>

c) Online resources

1. <http://www.studmedlib.ru> - Student Consultant
2. <http://www.rmj.ru> - Russian Medical Journal
3. <http://sci-lib.com> - Library of scientific books and magazines "Sci-Lib"

c) Software:

1. "Microsoft Windows" (DreamSpark / Microsoft Imagine Standart subscription); registration number 00037FFEBACF8FD7, contract number SD-130712001 dated 07 December 2013.
2. "Kaspersky Anti-Virus" 2016-2017. registration number KL4863RAUFQ, contract No. XII-567116 dated 29 August 2016._____
3. Freeware software: Open Office; Mozilla Firefox; Google Chrome Adobe Acrobat Reader; 7zip.

8. Material and technical means provided for the discipline (module) Propaedeutics of Internal Diseases

Name of special rooms and premises for students' in-class work	Equipment of special rooms and premises rooms for in-class work	List of licensed software. Details of the supporting document
Lecture hall 10-201	Set of educational furniture: tables, chairs. Multimedia system (projector, screen, laptop).	Microsoft Windows (DreamSpark / Microsoft subscription Imagine Standard); registration number 00037FFEBACF8FD7, contract number SD-130712001 dated 07/12/2013; Kaspersky Anti-Virus 2016-2017, registration number KL4863RAUFQ, Contract No. XII-567116 dated August 29, 2016; Free distributed software: Open Office; Mozilla Firefox; Google Chrome; Adobe Acrobat Reader ; 7 zip .
Classroom number 1 for practical classes G.A. Zakharyn City Clinical Hospital no. 6 according to the contract with health care facilities	Set of educational furniture: tables, chairs, training board. Laptop	«Microsoft Windows» (subscription DreamSpark/Microsoft Imagine Standart); registration number 00037FFEBACF8FD7, contract №CД-130712001 dated 12.07.2013; «KasperskyAnti-Virus» 2016-2017, registration number KL4863RAUFQ, contract № XII-567116 dated 29.08.2016; Free distributed software: Open Office; Mozilla Firefox; Google Chrome; Adobe Acrobat Reader; 7zip.
	Clinical medical history of disease with results of investigations performed on medical equipment: - ultrasound machine SIEMENS ACUSON X-300;	

	<ul style="list-style-type: none"> - X-ray unit K.RD- "Maxim"; - X-ray apparatus "ABRIS" RDS; - spiral computed tomography (AQVTLTON TOSHIBA -32); - magnetic resonance imaging (GE SignaHD* 1,5 T); - electrophysiological complex Astocard; - treadmill Astocard, treadmill RAN 770 Tredmils; - SCHILLERE RG9I IB P bicycle ergometer; - apparatus for daily monitoring of blood pressure SCHILLERBR -102 plus; - ECG Holter monitoring device SCHILLER MT-102 Holter; - ECG apparatus SCHILLER; - ECG device SCHILLER AT-2; - PHILIPS HDTXE ultrasound machine with a cardio sensor and a Doppler probe; - computer spirometer "Spiro-Spectrum"; - Medicor KE-12 bicycle ergometer; - the apparatus for daily monitoring of BPMnSDP-2Bplab; - Astocard ECG Holter Monitor, in accordance with the contract with health care facilities. 	
Classroom number 2 for practical classes G.A. Zakharyn City Clinical Hospital no. 6 according to the contract with health care facilities	<p>Set of educational furniture: tables, chairs, training board.</p> <p>Multimedia system (projector, screen, laptop)</p>	<p>Microsoft Windows (DreamSpark / Microsoft Imagine Standard subscription); registration number 00037FFEBA CF8FD7, contract number SD-130712001 dated 07/12/2013;</p> <p>Kaspersky Anti-Virus 2016-2017, registration number KL4863RAUFQ, contract No. XP-567116 dated on August 29, 2016;</p> <p>Free distributed software: Open Office; Mozilla Firefox; Google Chrome Adobe Acrobat Reader; 7zip.</p>
	<p>Clinical medical history of disease with results of investigations performed on medical equipment:</p> <ul style="list-style-type: none"> - ultrasound machine SIEMENS ACUSON X-300; - X-ray unit K.RD- "Maxim"; - X-ray apparatus "ABRIS" RDS; - spiral computed tomography (AQVTLTON TOSHIBA -32); - magnetic resonance imaging (GE SignaHD* 1,5 T); - electrophysiological complex Astocard; - treadmill Astocard, treadmill RAN 770 Tredmils; - SCHILLERE RG9I IB P bicycle ergometer; - apparatus for daily monitoring of blood pressure SCHILLERBR-102 plus; - ECG Holter monitoring device SCHILLER MT-102 Holter; - ECG apparatus SCHILLER; - ECG device SCHILLER AT-2; 	

	<ul style="list-style-type: none"> - PHILIPS HDTXE ultrasound machine with a cardio sensor and a Doppler probe; - computer spirometer "Spiro-Spectrum"; - Medicor KE-12 bicycle ergometer; - the apparatus for daily monitoring of BPMnSDP-2Bplab; - Astocard ECG Holter Monitor, in accordance with the contract with health care facilities. 	
Classroom number 2 for practical classes G.A. Zakharyn City Clinical Hospital no. 6 according to the contract with health care facilities	<p>A set of educational furniture: tables, chairs, training board. Multimedia system (projector, screen, laptop)</p> <p>Clinical medical history of disease with results of investigations performed on medical equipment:</p> <ul style="list-style-type: none"> - ultrasound machine SIEMENS ACUSON X-300; - X-ray unit KRD- "Maxim"; - X-ray apparatus "ABRIS" RDS; - spiral computed tomography (AQVTLTON TOSHIBA -32); - magnetic resonance imaging (GE SignaHD* 1.5 T); - electrophysiological complex Astocard; - treadmill Astocard, treadmill RAN 770 Tredmils; - SCHILLERE RG911B P bicycle ergometer; - apparatus for daily monitoring of blood pressure SCHILLERBR-102 plus; - ECG Holter monitoring device SCHILLER MT-102 Holter; - ECG apparatus SCHILLER; - ECG device SCHILLER AT~2; - PHILIPS HDTXE ultrasound machine with a cardio sensor and a Doppler probe; - computer spirometer "Spiro-Spectrum"; - Medicor KE-12 bicycle ergometer; - the apparatus for daily monitoring of BP MnSDP-2 Bplab; - Astocard ECG Holter Monitor, in accordance with the contract with health care facilities. 	<p>Microsoft Windows (DreamSpark / Microsoft Imagine Standart subscription); registration number 00037FFEBACF8FD7, contract number SD-130712001 dated 07/12/2013;</p> <p>Kaspersky Anti-Virus 2016-2017, registration number KL4863RAUFQ, contract No. XII-567116 dated on August 29, 2016;</p> <p>Free distributed software: Open Office; Mozilla Firefox; Google Chrome Adobe Acrobat Reader; 7zip.</p>
Rooms for students' out-of-class work: PSU 10-204	<p>Set of educational furniture: tables, chairs, training board. Computers with training CDs</p>	<p>Microsoft Windows (DreamSpark / Microsoft Imagine Standard subscription); registration number 00037FFEBACF8FD7, contract number SD-130712001 dated 07/12/2013;</p> <p>Kaspersky Anti-Virus 2016-2017, registration number KL4863RAUFQ, contract No. XII-567116 dated August 29, 2016;</p>

		Free distributed software: Open Office; Mozilla Firefox; Google Chrome Adobe Acrobat Reader; 7zip.
Rooms for students' out-of-class work: PSU 10-209	Set of educational furniture: tables, chairs, training board. ComputerswithtrainingCDs	Microsoft Windows (DreamSpark / Microsoft Imagine Standard subscription); registration number 00037FFEBACF8FD7, contract number SD-130712001 dated 07/12/2013; Kaspersky Anti-Virus 2016-2017, registration number KL4863RAUFQ, contract No. XII-567116 dated August 29, 2016; Free distributed software: Open Office; Mozilla Firefox; Google Chrome Adobe Acrobat Reader; 7zip.

The study program of the discipline Propaedeutics of Internal Diseases, Diagnostic Radiology was composed in compliance with the requirements of FSES HE and curriculum for the educational program 31.05.01 General Medicine

The program was compiled by:

1. J. Burmistrova L.F., Candidate of Medical Sciences _____

(Full name, position, signature)

2. _____

(Full name, position, signature)

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The program was approved at the meeting of the Department of Internal Diseases

Record no. 9

dated «03» March 2016

1 lead of the Department of Internal Diseases



F.K. Rakhmatullov

(signature, full name)

The program was approved by

Dean of the Faculty of General Medicine

I.Ya. Moiseeva

(signature, full name)

The program was approved by the methodological committee of the Medical Institute

Record no. 7

dated «05» March 20 16

Head of the methodological committee
of the Medical Institute



O.V. Kalmin

(signature, full name)

*JfrLMtvbr * N_o O ^ n M Prefect? Oj>.rb>c*+*



**Data on re-approval of the program for consecutive academic years
and record of amendments**

Academic year	Department decision (Record No. date, signature of head of the department)	Introduced amendments	Page numbers		
			changed	new	annulled
2016	№2 dated 3.09.16	No changes			
2017					
2017	№2 dated 5.09.2017	"General practice doctor" wa replaced by "Medical doctor" in the title list of the study program	1		
2018		Description of using educational technologies for disabled students and student with heath restrictions was added in p.5 Material and technical mean* was added in p.8	3		
2018- 2019	№13 dated 05.07.2018	No changes			