Ministry of Healthcare of Ukraine
Poltava state medical university
Department of Propaedeutics to Internal Medicine

SYLLABUS

Propaedeutics to Internal Medicine

Compulsory discipline

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academic and professional level	the second (master's) level of higher education
field of knowledge	22 «Healthcare»
specialty	222 «Medicine»
academic qualification	Master of Medicine
professional qualification	Medical Doctor
academic and professional program	222 «Medicine»
mode of study	Full time
course(s) and semester(s) of study of the discipline	III course, V, VI semesters

Poltava – 2024

INFORMATION ABOUT LECTURERS WHO DELIVER THE ACADEMIC DISCIPLINE

Surname, name, patronymic of the lecturer (lecturers), scientific degree, academic title	Chekalina Natalia Igorivna, MD Professor Petrov Yevhen Yevhenovich, Candidate of Medical Sciences, Associate Professor Shut Svitlana Volodymyrivna, Candidate of Medical Sciences, Associate Professor Kozakevich Olena Borysivna, Candidate of Medical Sciences, assistant Ivanytska Tatiana Anatoliivna, assistant
Profile of the lecturer (lecturers)	https://prop-intmed.pdmu.edu.ua/team
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Department page at the website of PSMU	https://prop-intmed.pdmu.edu.ua/

MAIN CHARACTERISTICS OF THE ACADEMIC DISCIPLINE

The scope of the academic discipline (module)

Number of credits / hours –6.0 / 180, of which:
Lectures (hours) – 24
Practical classes (hours) –70
Self-directed work (hours) –86
Type of control Final modular control

The policy of the academic discipline

The policy of the academic discipline takes into account the norms of the legislation of Ukraine on academic integrity, the Charter of the University the provisions of the PSMU and other normative documents. Applicants for higher education are obliged to fully master the knowledge, skills, practical skills and competencies of the discipline "Propaedeutics of Internal Medicine", adhering to the principles of academic integrity. They must respect the honor and dignity of others; responsibly perform their duties, timely and conscientiously perform the tasks provided by the curricula and plans. They must come on time for lectures and practical classes and not miss them without good reason; effectively use the time of training sessions to achieve educational goals; actively engage in independent work, using the recommendations of teachers, additionally using new literature, using all opportunities to obtain the necessary knowledge in the discipline "Propaedeutics of Internal Medicine"; use in educational or scientific activities only verified and reliable sources of information and refer to them competently. Applicants should only evaluate self-performed work that is not borrowed or reworked from another work done by others. During their stay at the clinical bases of the department, applicants for higher education must comply with the requirements for the appearance of persons who work and study at the university (white coat or surgical suit, changeable shoes and medical cap). The student must not violate the schedule of the educational process. The student must come to classes with a synopsis and prepared on the topic of the lesson, not to allow non-fulfillment of the curriculum and individual curriculum

without good reason. During the lesson, the student must not leave the classroom without the permission of the teacher; use mobile phones and other means of communication and information without the teacher's permission, engage in remote activities, distract other students and disturb the teacher. Students must maintain order in classrooms, classrooms, clinical facilities.

Applicants for higher education who have missed classes are obliged to apply to the dean's office for a rework permit within three days of attending classes.

The student's independent work is the main form of study organization, which includes various types of individual and collective educational activities carried out in classroom and extracurricular classes of the Department of Propaedeutics of Internal Medicine taking into account individual characteristics and cognitive abilities of higher education students under the guidance of a teacher or without his direct participation.

When studying the discipline "Propaedeutics of Internal Medicine" at the Poltava state medical university teachers, students act in accordance with: regulations on the organization of the educational process at the, work program, regulations on academic integrity of graduates and employees of the Poltava state medical universityon the organization of independent work of students at the Poltava state medical university, internal regulations for students of the Poltava state medical university regulations on the organization and methods of assessing the educational activities of higher education students at the Poltava state medical university regulations on missing classes and unsatisfactory assessments by applicants Poltava state medical university etc. (https://www.pdmu.edu.ua/n-process/department-npr/normativni-dokumenti).

Description of the academic discipline (summary)

Propedeutics of internal medicine is one of the first disciplines of the clinical stage before the doctor's diploma preparation, during which students acquire methods of diagnostics of internal diseases. Therefore, propedeutics of internal medicine is an educational clinical discipline that studies methods and techniques of clinical examination of the patient, features of professional communication of the doctor with the patient, subjective and objective manifestations of the disease (symptoms and syndromes), causes and mechanisms of their origin and development.

The study of the discipline takes place in two logical stages - mastering the basic methods of physical, instrumental and laboratory examination of the patient, after which students master the main symptoms and syndromes of the most common diseases of the internal organs and rules for establishing a syndromic diagnosis. According to this sequence, the discipline program is structured in two modules, each of which is divided into content modules.

The subject of study of the discipline "propaedeutics of internal medicine" is a set of theoretical and practical issues aimed at mastering the basic methods of examination of the patient in the clinic of internal medicine and the rules of syndromic diagnosis of the most common diseases of internal organs.

Pre-requisites and post-requisites of the academic discipline (interdisciplinary links)

Pre-requisites in accordance with the educational-professional program in the specialty "Medicine", the study of the discipline "propaedeutics of internal medicine" is carried out in V-VI semesters, when students acquire relevant knowledge in basic disciplines: medical biology, medical and biological physics, human anatomy, physiology, biological and bioorganic chemistry, medical chemistry, histology, cytology and embryology, microbiology, virology and immunology, with which the program of propaedeutics of internal medicine is integrated.

Post-requisites. Propaedeutics of internal medicine forms the basis for students to study the next clinical discipline - internal medicine, which involves "vertical" integration with this discipline and the formation of skills to apply knowledge of basic methods of examining the patient in further education and professional activities.

The aim and tasks of the academic discipline:

the aim of studying the academic discipline of "Propedeutics of internal medicine" is to form the basis of clinical thinking and the acquisition of professional competencies in the examination of the patient and the assessment of the main manifestations of diseases of the internal organs in accordance with the principles of medical ethics and deontology.

the main tasks of studying the discipline of "propedeutics of internal medicine" are:

- Mastering the student's theoretical knowledge necessary to identify human diseases
- Mastering practical methods and methods of physical and laboratory-instrumental examination of patients
- Mastering the general methodological approaches of clinical examination of the patient
- Diagnosis of individual internal human diseases with their typical manifestations
- Formation in students of moral-ethical and deontological qualities in professional communication with the patient

Competences and learning outcomes in accordance with the academic and professional program, the formation of which is facilitated by the discipline (integral, general, special)

- integral:

ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements.

- general:

1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.
2. Ability to apply knowledge in practical situations.
3. Knowledge and understanding of the subject area and understanding of professional activity.
4. Ability to adapt and act in a new situation. Ability to adapt and act in a new situation.
5. Ability to communicate in the state language both orally and in writing, the ability to communicate in a foreign language.
6. Skills in the use of information and communication technologies.
7. Definiteness and perseverance in relation to the set tasks and responsibilities.
8. Ability to act socially responsibly and consciously.

- special:

1. Patient interviewing skills.
2. Ability to determine the required list of laboratory and instrumental research and evaluation of their results.
3. Ability to establish a preliminary and clinical diagnosis disease.
4. Ability to determine the required mode of operation and rest in the treatment of diseases
5. Ability to diagnose emergencies.

6. Ability to complete medical records.

Learning outcomes of the academic discipline:

upon completing their study in the academic discipline, students must

know:

1. the most important etiological and pathogenetic factors of the formation of pathological processes in the human body;
2. methodical bases of clinical examination of the patient, the scheme of the patient's research and writing of the medical history;
3. methodical bases of physical examination of the patient - questioning, examination, palpation, percussion, auscultation;
4. the most important symptoms and syndromes in the clinic of internal diseases and their semiological interpretation;
5. clinical and diagnostic interpretation of the indicators of the most important laboratory-instrumental studies;
6. medical Greek-Latin terminology in defining the main manifestations of diseases and in use in professional vocabulary.

be able to:

1. Demonstrate mastery of the morally deontological principles of a medical specialist and the principles of professional subordination in an internal medicine clinic.
2. Conduct surveys and physical examination of patients and analyze their results in an internal medicine clinic.
3. Plan a patient examination for the typical course of the most common therapeutic diseases.
4. Analyze the results of basic laboratory and instrumental research methods.
5. Identify leading symptoms and syndromes in the clinic for internal diseases.
6. Demonstrate the ability to methodically correctly present the results of the examination of the patient in the form of a medical history with the rationale for a syndromic diagnosis.
7. To use Greco-Latin medical terms in the practical activity of a specialist.
8. Demonstrate mastery of the organization of patients' stay in the departments of therapeutic profile.
9. Demonstrate first-aid skills for patients with cardiovascular, respiratory and digestive disorders.

Thematic plan of lectures (by modules), specifying the basic issues, which are considered at the lecture

No	Topic	Hours
	Module 1. Basic methods of examination of patients in the internal medicine clinic.	
1	**Propedeutics of internal medicine as an introduction to the internal medicine clinic. Basic methods of examination of patients.** Propaedeutics of internal medicine as an introduction to clinical practice. History of formation of propaedeutics of internal medicine in Ukraine and abroad. The contribution of famous clinicians M.Ya. Mudrov, G.A. Zakhar'in, S.P. Botkin, O.O. Ostroumov, T.G. Yanovsky, V.P. Obraztsov, M.G. Kurlov, M.M. .Hubergritsa, MD Strazheska, MP Konchalovsky, MV Chernorutsky, GF Lang, OL Myasnikov, BS Shklyar in the development of the national propaedeutic school. The main goals and	2

	objects of study of propaedeutic medicine. The main methods of examination of patients in the clinic of internal medicine: physical, instrumental, laboratory.	
2	**Symptoms of diseases of the respiratory system based on the questioning of the patient, palpation and percussion of the chest.** The sequence of clarification and detailing of the most important subjective symptoms and their semiological assessment. Features of finding out the anamnesis of the disease and life. Methods of static and dynamic examination of the chest. Determination of topographic areas and physiological formations on the chest and their diagnostic value. Physiological and pathological forms of the chest, their criteria. Pathological forms of respiration (Cheyne-Stokes, Biota, Kussmaul, Grocco), their characteristics and causes. The sequence of chest palpation, determination of vocal tremor and semiological evaluation of its results.	2
3	**Symptoms of respiratory diseases based on lung auscultation.** History of auscultation development as a method of physical examination of the patient. Rules for using a stethoscope and phonendoscope. Methods of approximate comparative auscultation of the lungs. The main respiratory noises: vesicular and bronchial respiration, their quantitative and qualitative changes, conditions of occurrence. Classification of additional respiratory noises (wheezing, crepitation, pleural friction noise). Causes of dry and wet rales, their varieties. Diagnostic value of consonant and non-consonant rales. Conditions of crepitation and noise of pleural friction. Differential signs of additional respiratory noises. Additional auscultatory phenomena (noise of Hippocrates' splash, noise of a falling drop, noise of a "water pipe"), the reasons of their occurrence and diagnostic value	2
4	**Auscultation of the heart: the main symptoms when listening to normal and abnormal heart tones.** Methods and techniques of auscultation of the heart in accordance with the traditions of the Kiev therapeutic school. Main and additional points of auscultation. Places of projection and the best listening of heart valves. The mechanism of formation of heart sounds. Causes of strengthening and weakening of sounds. Accent sound. Sounds changes (clapping, muted, velvet, metallic, cannon tones). The concept of splitting and bifurcation of heart sounds, the reasons for their occurrence and temporal characteristics. Additional sounds - mitral valve opening, gallop tones (protodiastolic, mesodiastolic and presystolic gallop rhythm). Methodical features of auscultation of the heart - directly by the ear, stethoscope, phonendoscope: in the position of the patient standing, lying down, at rest and after exercise	2
5	**Organic and functional cardiac murmurs: mechanism of formation, sequence of hearing and diagnostic value of symptoms**. Causes and classification of cardiac murmurs (intracardiac and extracardiac, organic and functional, systolic and diastolic). Listening rules and algorithm for characterizing heart murmurs: relation to the phases of cardiac activity, place of best listening, locations, nature, intensity, shape, connection with heart tones, changes depending on body	2

	position (vertical, horizontal) and physical activity. Determination of auscultatory symptoms of Sirotinin-Kukoverov and Udintsev. The concept of functional murmurs and their differences from organic heart murmurs. Extracardiac murmurs. Pericardial friction murmurs, pleuropericardial murmur, cardiopulmonary murmur. The murmurs of the "whirligig" on the jugular vein. Traube double tone and Vinogradov-Durosier murmur on the femoral artery: method of determination, causes and mechanism of occurrence.	
6	**The main symptoms and syndromes of diseases and functional disorders of the gastrointestinal tract.** The sequence of clarification and detailing of complaints of a patient with pathology of the gastrointestinal tract. Features of collecting medical history and life history. Changes in the appearance of the patient with various pathologies of the gastrointestinal tract. Sequence of examination of the abdomen (shape, size, symmetry, condition of the skin and navel, fatness, condition of subcutaneous vessels, the nature of hair growth). The concept of topographic zones and topographic lines on the surface of the abdomen. Tasks and methods of superficial palpation of the abdomen (palpation to the arc of large and small radius, checking the symptoms of peritoneal irritation, detecting differences in the rectus abdominis, the presence of umbilical hernias.	**12**
	Module 2. Symptoms and syndromes in diseases of internal organs	
1	**Main symptoms and syndromes in arterial hypertension and coronary heart disease**. WHO determination for arterial hypertension, essential hypertension (hypertension) and symptomatic hypertension. The main risk factors for hypertension and the mechanisms of its development. Classification of hypertension by blood pressure level and target organ damage. The main complaints of the patient with hypertension, examination data, palpation of the precardiac area, percussion of the boundaries of cardiac dullness and auscultation. ECG signs of myocardial changes in hypertension. Symptomatic hypertension. Complicated and uncomplicated hypertensive crises	2
2	**Syndrome of heart and vascular insufficiency in diseases of the cardiovascular system.** Determination of heart failure and the main pathogenetic pathways of its development. Modern classification of heart failure (stages of heart failure, hemodynamic variant, functional classes of patients). The main clinical manifestations of heart failure and the data of instrumental research methods that confirm its presence. Vascular insufficiency and its main types: fainting, collapse, shock. The concept of syncopal states, the mechanism of their occurrence and the main clinical manifestations	2
3	**The main syndromes in respiratory diseases. Acute and chronic bronchitis, bronchial asthma. Emphysema of the lungs.** Definition and main mechanisms of chronic bronchitis and bronchial asthma. The main complaints and data of physical examination of patients with chronic bronchitis and bronchial asthma. Syndrome of bronchial obstruction, mucociliary insufficiency and increased lung ventilation. Basic methods of instrumental diagnostics. Laboratory signs of bronchial asthma according to general blood tests and sputum research. Definition	2

	and main clinical manifestations of bronchiectasis. The concept of chronic obstructive pulmonary disease	
4	**The main symptoms and syndromes of pneumonia, dry and exudative pleurisy. Clinical, instrumental and laboratory signs of pulmonary compaction syndromes, fluid accumulation in the pleural cavity, respiratory failure.** Definition and modern classification of pneumonia (inpatient, non-hospital, aspiration, pneumonia in immunocompromised individuals), classification by the nature of lung damage (pleuropneumonia, bronchopneumonia, interstitial pneumonia). The main etiological factors of pneumonia. Complaints of patients and features of these physical methods of examination of patients with lobar and focal pneumonia. Criteria for severe pneumonia. Possibilities of instrumental diagnostics of lung tissue compaction. Laboratory signs of inflammatory syndrome in pneumonia. The main causes of pneumosclerosis. Data of physical and instrumental examination of a patient with pneumosclerosis. The main clinical forms of lung cancer: features of manifestations in the central and peripheral localization of cancer. Pulmonary compaction syndrome.	2
5	**The main symptoms and syndromes of diseases of the stomach and intestines. Methods of clinical, laboratory and instrumental research in gastritis, peptic ulcer of the stomach and duodenum, enteritis and colitis.** Definition and modern classification of gastritis and peptic ulcer of the stomach and duodenum. The main etiological factors of these diseases. Prevalence of Helicobacter pylori, conditions of damage to the gastric mucosa and duodenum. The main complaints of patients with chronic gastritis and peptic ulcer disease. Features of the pain syndrome depending on the location of the pathological focus and the state of acid-producing function of the stomach. Manifestations of dyspeptic syndrome in chronic gastritis and peptic ulcer of the stomach and duodenum. Possibilities of instrumental and laboratory examination of patients. The main complications of peptic ulcer of the stomach and duodenum. Syndromes of gastric bleeding. The main symptoms and syndromes in patients with enteritis and colitis: intestinal dyspepsia syndrome, malabsorption and maldigestion syndromes, irritable bowel syndrome.	2
6	**The main symptoms and syndromes of kidney disease. Symptomatology of acute and chronic glomerulonephritis and pyelonephritis.** Definition and modern classification of glomerulonephritis and pyelonephritis. The main mechanisms of glomerulonephritis and pyelonephritis. Complaints of patients with kidney disease and the results of physical examination of patients with glomerulonephritis and pyelonephritis. Edema syndrome and hypertension syndrome in kidney disease. Possibilities of instrumental diagnosis of renal pathology. Laboratory study of urine, analysis and interpretation of the results of general clinical analysis of urine, study of urine by Nechiporenko, Amburge, Addis-Kakowski, Zymnytsky. Urinary, nephrotic syndromes in kidney disease. The results of biochemical blood tests in renal pathology. Syndromes of renal failure and renal colic. Definition and classification of chronic kidney disease.	2

	Total Module 2	**12**
	Total	**24**

Thematic plan of seminar classes by modules and content modules, specifying the basic issues, which are considered at the seminar class- is not planned

Thematic plan of practical classes by modules and content modules, specifying the basic issues, which are considered at the practical class

No	Topic	Hours
Module 1. " Basic methods of patient's examination in clinic of internal medicine"		
	Content module 1. Introduction to the clinic of internal medicine. Basic rules of questioning and examination of the patient	8
1	**Case history: its main parts and rules for composition. The method of medical inquiring, its diagnostic significance.** Case history: its main parts and rules of compilation. Methods of questioning the patient, its diagnostic value, taking into account the individual, intellectual and psychological characteristics of the patient	2
2	**Case history: its main parts and rules for composition. The method of medical inquiring, its diagnostic significance.** The main structural parts of the anamnesis (passport part, patient complaints, anamnesis of the disease, interrogation of organs and systems, anamnesis of life). The role of Ukrainian and Russian clinicians in the development of the professional art of patient interviewing	2
3	**General inspection of the patients, diagnostic significance of the revealed symptoms.** Methods of conducting a general examination of the patient. Determination of the general condition of the patient (types of general conditions of the patient and their criteria), assessment of the state of his consciousness (types of disorders of consciousness), posture, gait (types of posture and gait in various pathologies), position in bed (active, passive, forced, their types) . Physique and basic criteria of normal constitutional types. Skin, its properties (color, elasticity, humidity, temperature, rash elements, nevi, scars, scars) and pathological changes; assessment of hair and nails. Subcutaneous tissue (fatness, distribution, types of obesity), condition of muscles and musculoskeletal system. Sequence of palpation of lymph nodes. Diagnostic value of symptoms obtained during the general examination of the patient.	2
4	**Inspection of the separate parts of the body: head, neck, trunk, extremities.** Methods and sequence of examination of the head and neck, limbs and torso, abdomen and chest. Diagnostic value of the symptoms received during inspection of separate parts of a body of the patient.	2
	Content module 2. Physical and instrumental methods of studying the state of the broncho-pulmonary system.	*10*

5	**The main complaints in patients with respiratory organs diseases. Inspection and palpation of the chest.** The sequence of clarification and detailing of the most important subjective symptoms and their semiological assessment. Features of finding out the anamnesis of the disease and life. Methods of static and dynamic examination of the chest. Determination of topographic areas and physiological formations on the chest and their diagnostic value. Physiological and pathological forms of the chest, their criteria. Pathological forms of respiration (Cheyne-Stokes, Biota, Kussmaul, Grocco), their characteristics and causes. The sequence of chest palpation, determination of vocal tremor and semiological evaluation of its results.	2
6	**Percussion of the lungs. The technique of comparative percussion of the lungs**. History of percussion as a method of physical examination. The role of percussion in determining the condition of the lungs. Classification of percussion by purpose, by the force of percussion, by the method of conducting. Varieties and conditions of percussion tones. The main topographic areas and landmarks on the surface of the chest. The main tasks and methods of comparative percussion of the lungs. The sequence of characteristics and diagnostic value of the obtained data. Causes of dull, tympanic, dull-tympanic, box percussion tones over the lungs.	2
7	**Percussion of the lungs. The technique of topographic percussion of the lungs.** Basic topographic lines on the surface of the chest. The main tasks and sequence of topographic percussion of the lungs. Determining the height of the apices of the lungs in front and behind, the width of the Krenig fields. The sequence of determining the lower limit of the lungs, active and passive mobility of the lower lung edge. Traube space, its importance in lung pathology.	2
8	**Auscultation of the lungs.The main respiratory sounds (vesicular and bronchial breathing).** History of auscultation development as a method of physical examination of the patient. Rules for using a stethoscope and phonendoscope. Methods of approximate comparative auscultation of the lungs. Basic respiratory sounds: vesicular and bronchial respiration, their quantitative and qualitative changes, conditions of occurrence. Methods for determining bronchophonia and its diagnostic value	2
9	**Auscultation of the lungs: additional respiratory sounds (rales, crepitation, pleural friction sound).** Classification of additional respiratory sounds (wheezing, crepitation, pleural friction noise). Causes of dry and wet rales, their varieties. Diagnostic value of consonant and non-consonant rales. Conditions of crepitation and sound of pleural friction. Differential signs of additional respiratory sounds. Additional auscultatory phenomena (the Hippocrat's sound of slapping, the sound of a falling drop, the sound of a "water pipe"), the reasons for their occurrence and diagnostic value.	2
	Content module 3. Physical methods of research of cardiovascular system.	10

10	**Inquiring and general inspection of the patients with cardiovascular diseases. Curation of the thematic patients with anamnestic part of case history presentation.** Diagnostic value of the main physical methods of examination of the cardiovascular system (interrogation, examination, palpation, percussion, auscultation). The sequence of clarification and detailing of complaints of a patient with cardiovascular pathology.. Conducting a general examination of a patient with cardiac disease. Curation of the patient to write the anamnestic part of the case history.	2
11	**Inquiring and general inspection of the patients with cardiovascular diseases. Curation of the thematic patients with anamnestic part of case history presentation.** Diagnostic value of the main physical methods of examination of the cardiovascular system (interrogation, examination, palpation, percussion, auscultation). The sequence of clarification and detailing of complaints of a patient with cardiovascular pathology. Conducting a general examination of a patient with cardiac disease. Curation of the patient to write the anamnestic part of the case history.	2
12	**Pulse and blood pressure measurement.** Vessels available for pulse determination (arterial, venous). Rules and sequence of pulse examination on the radial artery. Determination of the main properties of the pulse (synchronicity, rhythm, frequency, voltage, filling, height, speed, uniformity), detection of deficit, lability, paradoxical, dichroic pulse. Rules for measuring blood pressure. Basic methods of determining blood pressure. The concept of Korotkov's tones. The main parameters that determine the indicators of systolic and diastolic blood pressure. The concept of pulse and mean dynamic blood pressure. Normal blood pressure values according to WHO criteria.	2
13	**Inspection and palpation of the heart region. Determination of the relative cardiac dullness borders and width of the vascular bundle by percussion.** The sequence of examination of the heart. Diagnostic value of cardiac hump, pulsations in the heart and neck. Methods and techniques of palpation of the precardiac area: apex beat (localization, area, force, height, resistance, displacement, causes of negative apex beat); heartbeat, causes of its occurrence and methods of determination; pulsation of the abdominal aorta, liver, Plesch's symptom, pulsation of the ascending aorta and its arch, detection of pulsation of the pulmonary trunk. Presystolic and systolic tremor (symptom of "cat purr"), causes. The concept of relative and absolute cardiac dullness, their percussion definition (sequence: right, upper, left border) and changes in pathology.	2

14	**Auscultation of the heart: normal heart sounds, reduplication and splitting of heart sounds, additional sounds**. Methods and techniques of auscultation of the heart in accordance with the traditions of the Kiev therapeutic school. Main and additional points of auscultation. Places of projection and the best listening of heart valves. The mechanism of formation of heart sounds. Causes of amplification and attenuation of sounds. Accent sound. Tone changes of the sounds (clapping, muted, velvet, metallic). The concept of splitting and bifurcation of heart sounds, the reasons for their occurrence and temporal characteristics. Additional sounds - mitral valve opening, gallop sounds (protodiastolic, mesodiastolic and presystolic gallop rhythm). Methodical features of auscultation of the heart - directly by the ear, stethoscope, phonendoscope: in the position of the patient standing, lying down, at rest and after exercise.	2
15	**Auscultation of the heart. Functional and organic cardiac murmurs.** Causes and classification of cardiac murmurs (intracardiac and extracardiac, organic and functional, systolic and diastolic, noise of expulsion, filling, regurgitation). Listening rules and algorithm for characterizing heart murmurs: relation to the phases of cardiac activity, place of best listening, locations, nature, intensity, shape, connection with heart sounds, changes depending on body position (vertical, horizontal) and physical activity. Determination of auscultatory symptoms of Sirotinin-Kukoverov and Udintsev. The concept of functional murmurs and their differences from organic heart murmurs. Extracardiac murmurs. Pericardial friction murmur, pleuropericardial murmur, cardiopulmonary murmur. The murmurs of the "whirligig" on the jugular vein. Traube double tone and Vinogradov-Durosier murmurs on the femoral artery: method of determination, causes and mechanism of occurrence.	2
	Content module 4. Instrumental methods of cardiovascular research.	8
16	**Electrocardiography. ECG registration technique and analysis. ECG signs of ventricular and atrium hypertrophy.** Clinical and diagnostic value of the method of electrocardiography. Biophysical and physiological bases of an ECG. The structure and function of drivers of heart rhythm and conduction system. The main and additional ways of conducting the pulse. Methods and techniques of ECG recording: standard leads, unipolar leads from the extremities, chest leads. The main elements of the ECG: the value of the duration and amplitude of the waves, the duration of the intervals and segments are normal. Algorithm and technique of ECG decoding. ECG signs of hypertrophy of the right and left atria and ventricles.	2

17	**Electrocardiography. ECG registration technique and analysis. ECG signs of ventricular and atrium hypertrophy.** Clinical and diagnostic value of the method of electrocardiography. Biophysical and physiological bases of an ECG. The structure and function of drivers of heart rhythm and conduction system. The main and additional ways of conducting the pulse. Methods and techniques of ECG recording: standard leads, unipolar leads from the extremities, chest leads. The main elements of the ECG: the value of the duration and amplitude of the waves, the duration of the intervals and segments are normal. Algorithm and technique of ECG decoding. ECG signs of hypertrophy of the right and left atria and ventricles.	2
18	**ECG diagnostics of arrhythmia associated with altered automaticy and excitability functions.** The basic structures of the function of the automatism of the heart. ECG signs of automatic disorders: sinus tachycardia, sinus bradycardia, sinus arrhythmia, sinus weakness syndrome. Types of extrasystole. ECG signs of sinus, atrial, atrioventricular and ventricular extrasystoles. Differentiation of right and left ventricular extrasystoles. Classification of ventricular arrhythmias. Types of allorhythms.	2
19	**ECG diagnostics of arrhythmia associated with altered conductivity and combinative arrhythmia** ECG signs of sino-auricular and intraatrial block. Classification and ECG signs of atrioventricular block. Morgan-Adams-Stokes attacks, their cause and clinical manifestations. Intraventricular blockade, differentiation of blocks of the left and right part of the His bundle. Acquaintance with indications for carrying out and rules of performance of electropulse therapy. ECG and clinical signs of atrial fibrillation and atrial fibrillation. Clinic and ECG for ventricular fibrillation, paroxysmal ventricular tachycardia, ventricular fibrillation.	2
	Content module 5. The main methods of research of the organs of the gastrointestinal tract and kidneys	6
20	**Inquiring and general inspection of the patients with digestive system pathology. Inspection and superficial palpation of the abdomen.** The sequence of clarification and detailing of complaints of a patient with pathology of the gastrointestinal tract. Changes in the appearance of the patient with various pathologies of the gastrointestinal tract. Sequence of examination of the abdomen (shape, size, symmetry, condition of the skin and navel, fatness, condition of subcutaneous vessels, the nature of hair growth). The concept of protopographic zones and topographic lines on the surface of the abdomen. Tasks and methods of superficial palpation of the abdomen (palpation to the arc of large and small radius, checking the symptoms of peritoneal irritation, detecting differences in the rectus abdominis, the presence of umbilical hernias and hernias of the white line of the abdomen).	2

21	**Deep sliding systematic palpation of the intestine and stomach.** Projection of the gastrointestinal tract on the surface of the abdomen. Sequence of deep sliding methodical palpation of the intestinal tract by the method of Obraztsov-Strazhesko: normal parameters of the sigmoid, cecum, terminal ileal, ascending, descending and transverse colon. Methods for determining the lower limit of the stomach (percussion, palpation, stethoacoustic, splash noise).	2
22	**Deep sliding systematic palpation of the liver, spleen and kidneys.** Percussion determination of the size and boundaries of the liver by the methods of Obraztsov and Kurlov. Causes of increase and decrease in the size of the liver. Method of deep sliding palpation of the liver. Characteristics of the normal palpation picture and possible changes of the lower edge of the liver in pathology. Methods of percussion determination of the size of the spleen, the main reasons for its increase. Rules of palpation of the spleen. Diagnostic value of determining Pasternatsky's symptom. Methods of palpation of the kidneys in a standing and lying position.	2
23	**The final students' knowledge control of the main methods patients' examination in clinic of internal diseases**	2
	Total Module 1	**46**
	Module 2. Symptoms and syndromes in diseases of internal organs	
	Content module 1: Main symptoms and syndromes in diseases of the cardiovascular system	**8**
1	**Mitral valve diseases:: the chief symptoms and syndromes grounds to the clinical and instrumental methods of examination**. The main causes and mechanisms of mitral regurgitation and mitral stenosis. Changes in hemodynamics in mitral heart disease. The value of the Chinese reflex. The main complaints of patients with mitral stenosis and mitral valve insufficiency. Examination data, palpation of the atrial area and percussion in mitral heart disease. Auscultatory picture of mitral stenosis and mitral regurgitation. ECG and FCG signs of mitral heart disease. Radiological signs of mitral regurgitation. The concept of mitral valve prolapse.	2
2	**Aortic valve diseases:: the chief symptoms and syndromes based on the clinical and instrumental methods of examination.** Etiological factors and mechanisms of development of aortic insufficiency and aortic stenosis. Changes in hemodynamics in aortic heart disease. The main complaints of patients with aortic stenosis and aortic valve insufficiency. Examination data, palpation of the atrial area and percussion in aortic heart disease. Auscultatory picture of aortic stenosis and aortic insufficiency. ECG and FCG signs of aortic heart defects. Radiological signs of aortic defects.	

3	**The chief symptoms and syndromes on essential hypertension and symptomatic arterial hypertension. Hypertensive crisis.** WHO determination for arterial hypertension, essential hypertension (hypertension) and symptomatic hypertension. The main risk factors for hypertension and the mechanisms of its development. Classification of hypertension by blood pressure level and target organ damage. The main complaints of the patient with hypertension, examination data, palpation of the precardiac area, percussion of the boundaries of cardiac dullness and auscultation. ECG signs of myocardial changes in hypertension. Symptomatic hypertension. Complicated and uncomplicated hypertensive crises.	2
4	**Coronary heart disease: the chief symptoms and syndromes on angina pectoris and myocardial infarction.** Definition of ischemic heart disease. The main pathogenetic mechanisms and risk factors for coronary heart disease. Modern classification of coronary heart disease. Definition and main clinical manifestations of angina. Functional classes of angina. Methods of objective diagnosis of angina (ECG, daily ECG monitoring, stress tests, heart scintigraphy, coronary angiography). Unstable angina, the concept of acute coronary syndrome. Definition and main clinical manifestations of acute myocardial infarction. Data of physical methods of examination of patients with acute myocardial infarction. Periodization of myocardial infarction. ECG - changes in different forms of myocardial infarction in different periods of its course. Modern laboratory markers of myocardial necrosis	2
	Content module 2. The main symptoms and syndromes in respiratory diseases.	6
5	**The chief symptoms and syndromes on chronic bronchitis and bronchial asthma. Chronic obstructive lung disease. Syndrome of increased airiness of pulmonary tissue** The main complaints and data of physical examination of patients with chronic bronchitis and bronchial asthma. Syndrome of bronchial obstruction, mucociliary insufficiency and increased lung ventilation. Basic methods of instrumental diagnostics. Laboratory signs of bronchial asthma according to general blood tests and sputum research. Definition and main clinical manifestations of bronchiectasis. The concept of chronic obstructive pulmonary disease	2

6	**Pneumonias: the symptoms and syndromes grounds on the clinical, instrumental and laboratory methods of examination. Pneumosclerosis. Cancer of the lung. Syndrome of consolidation of pulmonary tissue and respiratory failure in respiratory system pathology** Definition and modern classification of pneumonia (inpatient, non-hospital, aspiration, pneumonia in immunocompromised individuals), classification by the nature of lung damage (pleuropneumonia, bronchopneumonia, interstitial pneumonia). The main etiological factors of pneumonia. Complaints of patients and features of these physical methods of examination of patients with lobar and focal pneumonia. Criteria for severe pneumonia. Possibilities of instrumental diagnostics of lung tissue compaction. Laboratory signs of inflammatory syndrome in pneumonia. The main causes of pneumosclerosis. Data of physical and instrumental examination of a patient with pneumosclerosis. The main clinical forms of lung cancer: features of manifestations in the central and peripheral localization of cancer. Pulmonary compaction syndrome.	2
7	**Dry and exudative pleurisies: the symptoms and syndromes grounds to the clinical and instrumental methods of examination. Syndromes of accumulation of fluid and air in pleural cavity in broncho-pulmonary system pathology** Causes of inflammation of the pleural leaves. Ways of formation and circulation of intrapleural fluid in normal and in pathology. Features of the patient's complaints of dry and exudative pleurisy, the difference between the data of physical examination (palpation, percussion, lung auscultation) in different forms of pleurisy. Syndromes of accumulation of fluid and air in the pleural cavity. Possibilities of instrumental diagnostics. Pleural puncture: study of the contents of the pleural cavity. The difference between exudate and transudate according to physical and laboratory examination. The main clinical manifestations and stages of respiratory failure syndrome in lung diseases	2
	Content module 3. The main symptoms and syndromes in diseases of the gastrointestinal tract and excretory system.	6
8	**Clinical, instrumental and laboratory examination of the patients with chronic gastritis, peptic ulcer disease and intestine pathology. The chief symptoms and syndromes.** Definition and modern classification of gastritis and peptic ulcer of the stomach and duodenum. The main etiological factors of these diseases. Prevalence of Helicobacter pylori, conditions of damage to the gastric mucosa and duodenum. The main complaints of patients with chronic gastritis and peptic ulcer disease. Features of the pain syndrome depending on the location of the pathological focus and the state of acid-producing function of the stomach. Manifestations of dyspeptic syndrome in chronic gastritis and peptic ulcer of the stomach and duodenum. Possibilities of instrumental and laboratory examination of patients. The main complications of peptic ulcer of the stomach and duodenum. Syndromes of gastric bleeding. The main symptoms and syndromes in patients with enteritis and colitis: intestinal dyspepsia syndrome, malabsorption and maldigestion syndromes, irritable bowel syndrome	2

9	**The chief symptoms and syndromes on hepato-biliary system pathology: chronic cholecystites, cholangities, cholilythiasis, chronic hepatitis and liver cirrhosis.** Definitions and principles of modern classification of chronic cholecystitis and cholangitis. The concept of dyskinesia of the biliary tract and their types. The main complaints of patients with cholecystitis and cholangitis. Data of physical examination of patients with chronic cholecystitis and cholangitis. The concept of cutaneous-visceral and viscero-cutaneous symptoms in diseases of the biliary tract. Instrumental research methods in biliary tract pathology, laboratory diagnosis and results of duodenal sounding. Gallstone disease: main complaints and physical examination data. Features of the pain syndrome. The main manifestations of jaundice and cholestasis syndrome, their laboratory signs. Definition and principles of modern classification of chronic hepatitis and liver cirrhosis. The main etiological factors of hepatitis and liver cirrhosis. The mechanism of liver damage in hepatitis of viral etiology. The main complaints of patients with hepatitis and liver cirrhosis, features of examination results and physical examination data. Morphological and biochemical signs of liver damage. The concept of histological activity index and Child-Pew criteria. Syndromes of portal hypertension, liver failure and hepatolienal syndrome in liver lesions. The main complications of liver cirrhosis.	2
10	**The chief symptoms and syndromes on renal system pathology: acute and chronic glomerulonephritis and pyelonephritis. Chronic renal disease. General urin analysis** Definition and modern classification of glomerulonephritis and pyelonephritis. The main mechanisms of glomerulonephritis and pyelonephritis. Complaints of patients with kidney damage and the results of physical examination of patients with glomerulonephritis and pyelonephritis. Edema syndrome and hypertension syndrome in kidney disease. Possibilities of instrumental diagnosis of renal pathology. Laboratory study of urine, analysis and interpretation of the results of general clinical analysis of urine, study of urine by Nechiporenko, Amburge, Addis-Kakowski, Zymnytsky. Urinary, nephrotic syndromes in kidney disease. The results of biochemical blood tests in renal pathology. Syndromes of renal failure and renal colic. Definition and classification of chronic kidney disease.	2
	Content module 4. Endocrine diseases, pathology of the blood system and interpretation of the results of laboratory methods of examination.	2

11	**The chief symptoms and syndromes on anemia. Blood test. Presentation of individual work (case history)** Definition and modern classification of anemias. Basic laboratory criteria for anemia. The mechanism of development of iron deficiency in the body and the occurrence of iron deficiency anemia. The main clinical manifestations of sideropenic and general hypoxic syndromes in iron deficiency anemia. Laboratory criteria for iron deficiency anemia. Causes and pathogenesis of B12-folate deficiency anemia. Manifestations of general anemic syndrome, syndromes of digestive tract lesions, funicular myelosis and peripheral blood lesions in B12-folate deficiency anemia. The main laboratory signs of B12-folate deficiency anemia. Congenital and acquired hemolytic anemias: manifestations of general anemic, jaundice syndromes, splenomegaly and hemosiderosis of internal organs. The main laboratory criteria of hemolytic anemia and features of bilirubin metabolism disorders. Analysis and interpretation of general clinical blood test.	2
12	**The final students' knowledge control of the diagnostic of the main symptoms and syndromes of internal organs' diseases**	2
	Total Module 2	**24**
	Total hours	**70**

Self-directed work

№	Topics	Hours
Module 1. Basic methods of examination of patients in the clinic of internal diseases		
1	Preparation for practical classes - theoretical training and practical training	22
2	To work out topics that are not included in the classroom plan:	
	Instrumental and laboratory methods of respiratory examination Indications and methods of spirography and pneumotachometry, the main indicators of normal, changes in obstructive and restrictive variants of respiratory disorders. Familiarity with the method and diagnostic value of bronchoscopy and bronchography. Pleural puncture (technique and laboratory examination of the puncture site). Laboratory examination of sputum. X-ray examination of the chest, its types and diagnostic value. Computed tomography of the chest, the main indications for its implementation.	10
	Instrumental methods of cardiovascular system research Phonocardiography: diagnostic value of the method, method of registration and principles of FCG decoding. Polycardiography. Echocardiography: diagnostic value of the method, technique and technique of echocardiographic examination. The most important echocardiographic parameters are the volumes of the heart cavities, the ejection fraction, the thickness of the interventricular septum and the posterior wall of the left ventricle. Dopplerography of the heart and blood vessels. Phlebography, rheovasography: diagnostic value of methods. Research methods and techniques.	10
3	**Writing an anamnestic part of case history**	5

4	Preparation for final control of knowledge and skills of students on the basic methods of examination of patients in the clinic of internal diseases	6
Total Module 1		**53**
Module 2. Symptoms and syndromes in diseases of internal organs		
1.	Preparation for practical classes - theoretical training and practical training	11
2.	Working out topics that are not taught in the practical classes:	
	Heart Failure Syndrome: Basic Clinical and Instrumental Examination Methods. Determination of heart failure and the main pathogenetic pathways of its development. Modern classification of heart failure (stages of heart failure, hemodynamic variant, functional classes of patients). The main clinical manifestations of heart failure and the data of instrumental research methods that confirm its presence. Vascular insufficiency and its main types: fainting, collapse, shock. The concept of syncopal states, the mechanism of their occurrence and the main clinical manifestations.	2
	Hemorrhagic syndromes and pathology of the blood coagulation system. Disseminated intravascular coagulation syndrome. The main components of the blood coagulation system. Factors in the development of bleeding and the causes of hemorrhagic syndromes - thrombocytopenia, coagulopathy, hemorrhagic vasculitis. Characteristics of hemorrhagic syndrome in hemophilia, thrombocytopenic purpura and Shenlein-Henoch disease. Manifestations of joint, abdominal, renal and anemic syndromes in these diseases. Basic methods of laboratory diagnosis of hemorrhagic syndromes. Causes of development and pathogenesis of disseminated intravascular coagulation syndrome (DIC). Stages and clinical manifestations of DIC syndrome, its main laboratory criteria.	3
	The main symptoms and syndromes in diabetes. The main clinical manifestations of thyroid disease. Definition and modern classification of diabetes mellitus. The main risk factors and mechanisms of type 1 and 2 diabetes. Complaints, features of examination of patients and data of physical examination in type 1 and 2 diabetes. Modern laboratory diagnosis of diabetes mellitus, diagnostic value of glycosylated hemoglobin and immunoreactive insulin. The most common comatose states in diabetes mellitus (hyperketonemic, hypoglycemic coma), mechanism of development, clinical manifestations, first aid. The main etiological factors of thyroid disease. Hyperthyroid and hypothyroid syndromes in thyroid disease. Diffuse toxic goiter. The main complaints of the patient, the results of physical, instrumental and laboratory examination. The concept of thyrotoxic crisis. The main clinical manifestations of myxedema, the concept of hypothyroid coma.	5
3.	**Curating a patient with writing a case history.**	8
4.	Preparation for the final control of knowledge and skills to identify the main symptoms and syndromes of diseases of the internal organs	4
Total Module 2		**33**
Total hours		**86**

Individual tasks.

Indicative list of individual tasks:

Module 1: "Basic methods of examination of patients in the clinic of internal diseases"

1. Questioning the patient, his general examination and examination of the head, neck, extremities with the allocation of the main symptoms and syndromes of the disease.
2. External respiratory function studies in case patients, data processing and occupational report
3. ECG registration, participation in instrumental studies of the cardiovascular system in case patients with data processing and employment report
4. Physical and instrumental examination of the patient with preparation of the review of scientific literature on the case under study
5. Working with literature and other sources of information and preparation of abstract report on modern methods of examination of patients in the clinic of internal diseases

Module 2: Symptoms and Syndromes in Internal Organ Diseases

1. Weekly observation of a patient with pathology of the cardiovascular system with writing a medical history and presenting a clinical case in a practical session
2. Weekly observation of a patient with pathology of the bronchopulmonary system with writing a medical history and presenting a clinical case in a practical session
3. Weekly observation of a patient with pathology of the digestive system with writing a medical history and presenting a clinical case in a practical session
4. Weekly observation of a patient with pathology of the urinary system with writing of medical history and presentation of a clinical case in a practical session
5. Weekly follow-up of patients with endocrine pathology with writing medical history and presenting a clinical case in a practical session
6. Weekly observation of the patient with pathology of the hematopoietic system with writing a medical history and presentation of a clinical case in a practical session
7. Working with literature and other sources of information and preparation of abstract report on peculiarities of syndromic diagnosis of a disease with a typical course chosen at the student's request

The list of theoretical questions for students' preparation for the final module control and semester final attestation

List of questions for module № 1 "Basic methods of examination of patients in the clinic of internal diseases":

1. Basic methods of diagnostics of internal diseases.
2. The scheme of questioning of the subject. The main structural parts of the anamnesis.
3. The sequence of the general examination of the patient.
4. Types of body conctitution and their main criteria.
5. The sequence of palpation of the lymph nodes and the characteristics of the data obtained.
6. Rules for the examination of the head and neck.
7. The sequence of inspection of the trunk and extremities.
8. Static examination of the chest, diagnostic value of the main symptoms.
9. Dynamic examination of the chest, diagnostic value of the main symptoms.
10. Examination of the cardiac area, diagnostic value of the main symptoms.
11. The sequence of the examination of the abdomen, determination of the main symptoms.
12. Basic properties of a pulse, rules and sequence of their definition.
13. Rules for measuring blood pressure. Determination of systolic and diastolic pressure by the method of Korotkov, calculation of pulse, average dynamic pressure.
14. Palpatory examination of the chest: sequence of conduct, clinical significance of the main symptoms.
15. Palpatory examination of the cardiac area, determination of the clinical significance of the symptoms found.
16. Superficial abdominal palpation: an algorithm for conducting and analyzing the data obtained.

17. Theoretical principles and principles of deep methodical sliding palpation of the abdomen by the method of Obraztsov-Strazhesk.
18. Palpatory examination of the sigmoid, caecum, terminal of the ileum, their properties are normal.
19. Rules of palpation of the ascending and descending colon, their properties are normal.
20. Methods for determining the lower border of the stomach.
21. Palpatory study of the transverse colon, basic properties.
22. Rules of palpation of the liver, diagnostic value of the main symptoms.
23. Palpatory examination of the spleen.
24. Methods for determining the presence of fluid in the abdominal cavity.
25. The sequence of comparative lung percussion. Basic percussion tones and the mechanism of their formation.
26. An algorithm for conducting topographic lung percussion. Topographic parameters of the lungs are normal and in pathology.
27. Percussion study of the heart - relative cardiac dullness: normal limits and their displacement when changes in the heart chambers.
28. Percussion examination of the heart is absolute cardiac dullness: normal limits and their displacement due to cardiac and extra-cardiac causes.
29. Percussion determination of a vascular bundle, its diagnostic value.
30. Percussion of the liver by the method of Obraztsov: sequence of conduction, parameters in norm and in pathology.
31. Percussion of the liver by the Kurlov method: the sequence of conduction, parameters in the norm and in pathology.
32. Percussion determination of spleen boundaries. Rules of conduct, causes of enlargement of the spleen.
33. Auscultation of the lungs - determination of the main respiratory noises, their qualitative and quantitative changes.
34. Auscultation of the lungs - determination of additional respiratory noise, their classification, algorithm of characteristic of auscultative picture of the lungs
35. Mechanisms of formation and varieties of rales, their diagnostic value.
36. The main causes of crepe formation and pleural friction noise. Their diagnostic value and methods of differentiation.
37. Rules and sequence of the study of bronchophony, its diagnostic value.
38. Auscultation of the heart - the heart tones, the mechanism of their formation and changes in strength and timbre.
39. Splitting and splitting of heart tones, the concept of accentuation of the second tone.
40. Extra heart tones - quail rhythm and canter rhythm.
41. Auscultation of cardiac noises: classification and conditions of occurrence.
42. Auscultation of cardiac noises: sequence of characteristics, differences between organic and functional noises.
43. Diastolic functional noises (Flint, Coombs, Graham-Styl): conditions of occurrence and diagnostic value.
44. ECG analysis rules. Sinus rhythm criteria, heart rate, and determination of the position of the electrical axis of the heart.
45. ECG - signs of disorders of automatism.
46. ECG - signs of disorders of excitability. Differentiation of the main types of extrasystoles.
47. ECG – signs of conductivity disorders. Classification of conductivity disorders.
48. ECG – signs of atrial fibrillation and atrial flutter. Mechanisms of their occurrence.
49. ECG – signs of ventricular fibrillation and flutter.

List of questions for module №2:

"Symptoms and syndromes in diseases of the internal organs":

1. Syndrome of consolidation of pulmonary tissue: causes, clinical, laboratory and instrumental methods of diagnosis.
2. Syndrome of increased airiness of pulmonary tissue: causes, clinical, laboratory and instrumental methods of diagnosis.
3. Fluid accumulation syndrome in the pleural cavity: causes, clinical, laboratory and instrumental methods of diagnosis.
4. Syndrome of air accumulation in the pleural cavity: causes, clinical, laboratory and instrumental methods of diagnosis.
5. Bronchial obstruction syndrome: causes, clinical, laboratory and instrumental methods of diagnosis.
6. Heart pain syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
7. Syndrome of heart failure: etiology, pathogenesis, classification, clinical, laboratory and instrumental methods of diagnosis.
8. Vascular insufficiency syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
9. Hypertension syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
10. Dyspeptic syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
11. Dysphagic syndrome; etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
12. Types of biliary tract dyskinesia: main clinical manifestations, laboratory and instrumental methods of diagnosis.
13. Portal hypertension syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
14. Jaundice syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
15. Gastrointestinal bleeding syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
16. Nephrotic syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
17. Urinary syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
18. Syndrome of acute renal failure: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
19. Chronic renal failure syndrome: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
20. Anemic syndrome; etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
21. Hyperplastic syndrome in diseases of hematopoietic organs: etiology, pathogenesis, clinical, laboratory and instrumental methods of diagnosis.
22. Hemorrhagic syndromes: classification, pathogenesis, clinical and laboratory methods of diagnosis.
23. Hyperthyroid syndrome: main causes, clinical manifestations, laboratory and instrumental methods of diagnosis.
24. Hypothyroid syndrome: main causes, clinical manifestations, laboratory and instrumental methods of diagnosis.
25. Bronchitis: classification, main clinical manifestations, diagnosis.

26. Bronchoectatic disease: classification, main clinical manifestations, diagnosis.
27. Bronchial asthma: classification, main clinical manifestations, diagnosis.
28. Pulmonary emphysema: symptomatology, diagnosis.
29. Hospital and community-acquired pneumonia: classification, main clinical manifestations, diagnosis.
30. Dry and exudative pleurisy: symptomatology, diagnosis.
31. Lung cancer: basic clinical forms, symptomatology, diagnosis.
32. Mitral heart defects: the main clinical manifestations, diagnosis.
33. Aortic defects of the heart: the main clinical manifestations, diagnosis.
34. Coronary heart disease: main clinical manifestations and diagnosis of angina pectoris.
35. Coronary heart disease: main clinical manifestations and diagnosis of acute myocardial infarction.
36. Hypertension: current classification, clinical manifestations, diagnosis.
37. Symptomatic arterial hypertension: classification; physical, instrumental, and laboratory examination data suggesting secondary arterial hypertension.
38. Chronic gastritis: classification, main clinical manifestations, diagnosis.
39. Peptic ulcer of the stomach and 12 duodenum: classification, main clinical manifestations, diagnosis.
40. Chronic cholecystitis and cholangitis: classification, main clinical manifestations, diagnosis.
41. Cholelithiasis: stages of development, symptoms, diagnosis.
42. Hepatitis: the main clinical manifestations, diagnosis.
43. Cirrhosis of the liver: the main clinical manifestations, diagnosis.
44. Acute and chronic glomerulonephritis: the main clinical manifestations, diagnosis.
45. Acute and chronic pyelonephritis: the main clinical manifestations, diagnosis.
46. Anemia: classification, major syndromes.
47. Iron deficiency anemia: pathogenesis, clinical manifestations, laboratory criteria.
48. B12 – foliar deficiency anemia: pathogenesis, clinical manifestations, laboratory criteria.
49. Hemolytic anemia: classification, major syndromes, laboratory criteria.
50. Hemophilia: classification, main clinical manifestations, laboratory diagnostics.
51. Thrombocytopenic purpura: basic clinical manifestations, laboratory diagnostics.

The list of practical skills required for the final module control № 1: "Basic methods of examination of patients in the clinic of internal diseases":

1. To interview the patient. To make a conclusion about the anamnestic data received. Identify the main symptoms and syndromes.
2. To conduct an overview of the indicative patient. Identify leading symptoms.
3. Examine the patient's head and neck. To determine the clinical significance of symptoms.
4. Inspect the trunk and extremities of the patient. To determine the clinical significance of symptoms.
5. To examine the chest of a patient with broncho-pulmonary pathology, to evaluate the static and dynamic signs.
6. Conduct an examination of the atrial site and determine the clinical significance of the symptoms.
7. Examine the abdomen, determine the clinical significance of the symptoms.
8. To conduct a palpatory examination of the chest to determine the clinical significance of the symptoms.
9. To conduct a palpation of the lymph nodes, to evaluate the results.
10. To carry out a palpation of a thyroid gland, to estimate the received data.
11. To carry out a palpatory study of a pulse, to determine the clinical significance of symptoms.

12. To conduct a palpatory study of the heart region, to determine the clinical significance of the symptoms.
13. To conduct superficial palpation of a stomach, to define clinical value of symptoms.
14. To carry out a palpatory research of a sigmoid gut, to determine the clinical significance of symptoms.
15. Carry out a palpation study of the caecum, determine the clinical significance of the symptoms.
16. Conduct a palpation study of the ascending colon to determine the clinical significance of the symptoms.
17. To conduct a palpation study of the descending colon, to determine the clinical significance of the symptoms.
18. Carry out a palpation study of the transverse colon, determine the clinical significance of the symptoms.
19. Carry out a palpation study of the liver, determine the clinical significance of the symptoms.
20. To conduct a palpatory examination of the spleen, to determine the diagnostic value of the symptoms.
21. To carry out palpatory and percussion examination of the kidneys, to determine the diagnostic value of the symptoms.
22. Determine the lower border of the stomach, evaluate the data obtained.
23. To determine the presence of fluid in the abdominal cavity, to give a clinical evaluation.
24. To carry out measurements of blood pressure on the upper extremities, to evaluate the data obtained.
25. To carry out measurements of arterial pressure on the lower extremities, to estimate the received data.
26. Conduct comparative percussion of the lungs and determine the clinical significance of the symptoms.
27. To conduct topographic percussion of the lungs and determine the diagnostic value of the symptoms.
28. To conduct percussion examination of the heart, to determine the limits of relative dullness of the heart, to give a clinical evaluation.
29. To conduct percussion examination of the heart, to determine the limits of absolute dullness of the heart, to give a clinical evaluation.
30. Percussion method to determine the boundaries of the liver, to evaluate the diagnostic value of symptoms.
31. Percussion method to determine the boundaries of the spleen, to give a clinical evaluation.
32. To carry out auscultation of the lungs, to determine quantitative and qualitative changes of breathing, to give a clinical evaluation.
33. To carry out auscultation of the lungs, to determine additional respiratory noises, to give a clinical evaluation.
34. Conduct a study of bronchophony, give clinical evaluation.
35. Auscultation of the arteries, determine the diagnostic value of the symptoms.
36. To conduct auscultation of the heart, to determine changes in its tones, to give a clinical evaluation.
37. Carry out auscultation of the heart, determine the diagnostic value of heart murmurs.
38. To analyze the ECG of a patient with cardiac dysfunction.
39. To analyze the ECG of a patient with impaired heart excitation. Conduct differential diagnosis of extrasystoles.
40. To analyze the ECG of a patient with impaired cardiac conduction.

41. To analyze the ECG of a patient with combined impaired excitability and cardiac conduction.
42. To analyze the PCG of a patient with heart defect.

The list of practical skills required for the final module control № 2: "Symptoms and syndromes in diseases of internal organs":

1. To conduct physical examination of the patient with mitral heart defect. Identify leading symptoms and syndromes.
2. To conduct physical examination of the patient with aortic defect of the heart. Identify leading symptoms and syndromes.
3. To conduct a physical examination of the patient with hypertension. Identify leading symptoms and syndromes.
4. To interview the patient for coronary heart disease (stable angina pectoris), to detail the pain syndrome, to determine the functional class of the patient.
5. To conduct general examination and physical examination of the patient with acute myocardial infarction. Identify the main symptoms and syndromes.
6. Assess the ECG of a patient with acute myocardial infarction, determine the nature and localization of the lesion of the heart muscle.
7. To conduct a physical examination of a patient with heart failure. To identify the main symptoms and syndromes, to establish the functional class of the patient.
8. Conduct interrogation and examination of a patient with obstructive pulmonary disease. Identify the main symptoms and syndromes, based on spirography data to determine the stage of the disease.
9. Perform palpation, chest percussion and lung auscultation in a patient with obstructive pulmonary disease. Identify the main symptoms and syndromes.
10. Conduct interrogation and physical examination of a patient with pneumonia. Identify the main symptoms and syndromes.
11. Conduct interrogation and physical examination of the patient with pleurisy. To determine the nature of pleurisy, the main symptoms and syndromes.
12. Conduct examination, examination and palpation of the abdomen in a patient with chronic gastritis. Identify leading syndromes.
13. To analyze the results of intragastric pH-metry in a patient with chronic gastritis. Evaluate the acid-forming function of the stomach.
14. Conduct examination, examination and palpation of the abdomen in a patient with peptic ulcer of the stomach / duodenum. Identify the major syndromes, identify the possible localization of the ulcer.
15. Conduct examination, examination and and palpation of the abdomen in a patient with chronic cholecystitis. Check the main symptoms of gall bladder damage. Identify the major syndromes.
16. Conduct examination, examination and and palpation of the abdomen in a patient with chronic cholangitis. Identify the major syndromes.
17. To evaluate data of multidimensional duodenal sensing of a patient with biliary tract disease. Identify the main symptoms and localization of the lesion.
18. Conduct an examination and examination of a patient with hepatitis (or cirrhosis). Identify the main symptoms and syndromes.
19. To conduct a physical examination of a patient with hepatitis (or cirrhosis). Identify major syndromes based on biochemical blood and urine analysis data.
20. Conduct a physical examination of a patient with kidney disease (pyelonephritis or glomerulonephritis). Identify the major syndromes.

21. To analyze the general clinical analysis of urine of a patient with kidney disease, urine analysis by Zymnitsky and Nechiporenko methods. Identify the main symptoms and syndromes. To conclude on the nature of kidney damage.
22. To carry out physical examination of the patient with anemia. Identify the main symptoms and syndromes, taking into account the overall blood test, determine the nature of the anemia.
23. To conduct interrogation and general examination of the patient with diabetes, to investigate the pulse on the vessels of the upper and lower extremities, to measure blood pressure. Identify the main symptoms and syndromes.

The form of final control of academic performance is final module control

The system of continuous and final control

Continuous t control is carried out by scientific or pedagogical workers during practical classes. The main purpose of current control is to provide feedback between the student and the pedagogical workers in the learning process and the formation of learning motivation of higher education. The information obtained during the continuous control is used both by the student and pedagogical worker - to adjust technologies, methods and teaching aids, and by applicants for higher education - to plan independent work.

The teacher must assess the success of each student in each class on a four-point (traditional) scale, taking into account standardized, generalized criteria for assessing the knowledge of higher education. Current control involves 100% survey of students in the group in practice, a lesson with a mandatory assessment of all components of the lesson - test control, oral examination, solving situational cases and others. Each topic of the lesson also involves the control of practical skills (examination, palpation, percussion, auscultation). For each stage of the lesson and the element of current control the student receives the traditional grade "5-4-3-2", from which the teacher forms the arithmetic mean for the lesson, which is converted into points according to the table of generalized criteria for assessing knowledge of higher education in PSMU.

On a 4-point scale	Evaluation in ECTS	Evaluation criteria
5 (excellent)	A	The student shows special creative abilities, is able to acquire knowledge independently, without the help of the teacher finds and processes the necessary information, is able to use the acquired knowledge and skills for decision-making in unusual situations, convincingly argues answers, independently reveals own talents and inclinations, possesses not less than 90 % of knowledge on the topic both during the survey and all types of control.
4 (good)	B	The student has the studied amount of material, applies it in practice, freely performs skills and solves tasks
		in standardized situations, he can self-correct errors, the number of which is insignificant, has at least 85% knowledge of the topic both during the survey and all types of control.
	C	The student is able to compare, summarize, systematize information under the guidance of a scientific and pedagogical worker, in general, independently apply it in practice, control their own activities; to correct mistakes, among which there are significant, to choose arguments to confirm opinions, has at least 75% knowledge of the topic both during the survey, and all

		types of control.
3 (satisfactory)	D	The student reproduces a significant part of the theoretical material, shows knowledge and understanding of the basic provisions with the help of research and teaching staff can analyze educational material, correct errors, among which there is a significant number of significant, has at least 65% knowledge of the topic, and of all kinds control.
	E	The student has the educational material at a level higher than the initial, a significant part of it reproduces at the reproductive level. possesses at least 60% knowledge of topics both during the survey and all types of control.
2 (unsatisfactory)	FX	The student has knowledge at the level of individual fragments that make up a small part of the material, has less than 60% knowledge of the topic both during the survey and all types of control.
	F	The student has knowledge at the level of elementary recognition and reproduction of individual facts, elements, has less than 60% of knowledge on the topic as during the survey,and all types of control.

The form of final control in the discipline "Propaedeutics of Internal Medicine" is the final module control (FMC), which is carried out after the completion of the study of all topics of the module in the last lesson.

Students who have attended all classroom classes (lectures, practical classes) provided for in the calendar (or completed them in a timely manner) and scored for the current initial activity the number of points not less than the minimum (72 points) are allowed to the final modular control.

The final modular control involves testing the student's theoretical knowledge (test control), demonstration of practical skills and analysis of the results of instrumental / laboratory examination of the patient (situational task).

The final control from module №1 consists of 40 test questions with one correct answer (40 points), a situational task (10 points) and a demonstration of the student's practical skills (30 points).

The final control from module № 2 consists of 50 test questions with one correct answer (50 points), a situational task (15 points) and a demonstration of the student's practical skills (15 points).

The maximum number of points that a student can receive during the module control is 80.

The final control is considered credited if the student has scored at least 50 points.

The final assessment of learning outcomes is carried out on a single 200-point scale. The assessment of the applicant corresponds to the ratio of the level of professional and general competencies established in the assessment to the planned learning outcomes (as a percentage). At the same time, standardized generalized criteria for assessing the knowledge of higher education students are used.

The minimum convertible sum of points of current success for all modules of all disciplines of all departments is uniform and makes 72 points.

The maximum number of points per module is 200 points. Applicants for higher education who during the study of the module, which is the final control, had an average score of current performance from 4.50 to 5.0 are exempt from the FMC and automatically (by agreement) receive a final grade in accordance with table 2, with the presence of the applicant education at the FMC is mandatory. In case of disagreement with the assessment, this category of higher

education seekers is FMC according to the general rules. The obtained points for the module are presented by the research and pedagogical worker in the "Statement of final module control" (and the individual curriculum of the student.

The result of the final module control is evaluated in points (traditional 4-point evaluation is not given). The maximum number of points of the final modular control is 80 points. The minimum number of points of the final module control, for which the control is considered to be passed, is 50 points.

In case of violation by the applicant of higher education of the rules of academic integrity (p.2.2.5. Of the Rules of Procedure), the evaluation results obtained during the preparation of the FMC to the applicant for the answer is graded "unsatisfactory".

Table №2. Unified table of correspondence of scores for current performance, scores for FMC, exam, and traditional four-point score

Average score for current performance	Points for current success in the module	Points for final control	Points for the module and / or exam	Category ECTS	By 4-point scale
2	48	32	80	**F**	**2**
2,1	50	34	84	**FX**	unsatisfactory
2,15	52	34	86		
2,2	53	35	88		
2,25	54	36	90		
2,3	55	37	92		
2,35	56	38	94		
2,4	58	38	96		
2,45	59	39	98		
2,5	60	40	100		
2,55	61	41	102		
2,6	62	42	104		
2,65	64	42	106		
2,7	65	43	108		
2,75	66	44	110		
2,8	67	45	112		
2,85	68	46	114		
2,9	70	46	116		
2,95	71	47	118		
3	72	50	122	**E**	**3**
3,05	73	50	123		satisfactory
3,1	74	50	124		
3,15	76	50	126		
3,2	77	51	128		
3,25	78	52	130	**D**	
3,3	79	53	132		
3,35	80	54	134		
3,4	82	54	136		
3,45	83	55	138		
3,5	84	56	140		
3,55	85	57	142		

3,6	86	58	144	**C**	**4**
3,65	88	58	146		good
3,7	89	59	148		
3,75	90	60	150		
3,8	91	61	152		
3,85	92	62	154		
3,9	94	62	156		
3,95	95	63	158		
4	96	64	160	**B**	
4,05	97	65	162		
4,1	98	66	164		
4,15	100	66	166		
4,2	101	67	168		
4,25	102	68	170		
4,3	103	69	172		
4,35	104	70	174		
4,4	106	70	176		
4,45	107	71	178		
4,5	108	72	180	**A**	**5**
4,55	109	73	182		excellent
4,6	110	74	184		
4,65	112	74	186		
4,7	113	75	188		
4,75	114	76	190		
4,8	115	77	192		
4,85	116	78	194		
4,9	118	78	196		
4,95	119	79	198		
5	120	80	200		

Information about students who are not enrolled in FMC, with the exact reason for non-enrollment is also included in the "Statement of final module control" and individual curricula of students. The reasons for non-enrollment may be the following:

a) the applicant for higher education has unfulfilled absences from classes and (or) lectures, industrial practice.

b) the applicant of higher education attended all classes (practical, seminar, lecture), but did not score the minimum number of points for the current educational activity and is not allowed to FMC.

c) the higher education student attended all classes, scored points for current educational activities and was admitted to the FMC, but he did not appear at the FMC.

Applicant for higher education has the right to compile and re-compile FMC Permit for re-compilation of FMC is issued by the dean, director of the institute (or his deputy) in the form of "Personal statement of reassignment of final control" and (if necessary) information from the department on debt liquidation. In the case of organized reorganization of the FMC by a group of applicants for higher education, the general statement is used.

The personal list of rearrangement of the final modul control (general statement) is filled in by the head of the department or his authorized person in two copies, one of which remains at the department, the other is returned to the dean's office by the head of the educational part (responsible teacher). Applicants for higher education have the right to retake FMK, until the end of the study of the discipline

Teaching methods
- verbal (lecture, explanation, story, conversation, instruction);
- visual (observation, illustration, demonstration);
- practical (different types of exercises, practice).
- active (analysis of specific situations, presentations, thematic discussions)

Control methods
- oral control;
- written control;
- test control;
- programmable control;
- practical inspection;
- self-control;
- self-esteem.

Methodological support

All types of educational activities have methodological support: lectures, practical classes, independent work of students.

Methodical support of the lecture course:

1. Abstracts of lectures.
2. Lecture presentations.
3. Audio recordings with data on auscultation of the heart and lungs.
4. Videos and educational films with data from instrumental methods of examination.
5. Demonstration materials for the analysis of thematic patients and clinical cases.

Methodical support of practical classes:

1. Abstracts of practical classes for teachers.
2. Questions for independent work of applicants for higher education in preparation for practical training and in class.
3. Variants of test questions and tasks to check the initial level of knowledge on each topic of the module.
4. Variants of situational tasks to check the mastery of topics, content modules.
5. Standardized data of instrumental and laboratory methods of examination.
6. Variants of tasks (theoretical and practical) for final control.

Methodical support of final controls:

1. Test tasks of format A.
2. Practical tasks to test the mastery of practical skills.
3. Sets of medical terms to control the assimilation of Latin terminology
4. Sets of results of general clinical laboratory examination of patients:
- General blood test
- Biochemical blood test
- General analysis of urine
- Urine tests by the methods of Zymnytsky, Nechyporenko
- Analysis of duodenal contents
- Results of intragastric pH-metry
5. Sets of results of instrumental examinations of patients:
- Radiographs
- Electrocardiograms
- Echocardiograms
- Phonocardiograms
- Ultrasound of the abdominal cavity and retroperitoneal space

The development of test control questions and the formation of structured tasks for written works used to diagnose the theoretical success of learning should be based on a list of

questions that students must master when studying modules № 1 and 2 of the discipline "Propaedeutics of Internal Medicine".

Recommended reading

Basic

1. Kovalyova O.N. Propedeutics of internal medicine : textbook for English learning students of higher med. schools. Pt. 1 : Diagnostics/ O. M. Kovalyova, T. V. Ashcheulova. – 4th ed.- Vinnytsia : Nova knyha, 2019.- 417 p.
2. Kovalyova O.N. Propedeutics of internal medicine: textbook for English learning students of higher med. schools. Pt. 2: Syndromes and diseases/O.N. Kovalyova, S. O. Shapovalova, O. O. Nizhegorodtseva. - 4th ed.- Vinnytsia : Nova knyha, 2019 . – 258 p.

Supplementary

1. Bates' Guide to Physical Examination and History Taking /Ed. Lynn S. Bickley, Peter G. Szilagyi. – Wolters Kluwer, 2017. – 1066 p.
2. Davidson's Principles and Pratice of Medicine/ Ed. Stuart Ralston, Ian Penman, Mark Srtachan, Richard Hobson.- 23rded.-Elsevier, 2018.- 1440 p.
3. Macleod's clinical examination/Ed. J.Alaster Innes, Anna R. Dover, Karen Fairhurst.- 14th ed.-Elsevier, 2018.-383 p.

Information resources

1. OSCE-1. Bogomolets NMU. Physical Testing Methods for the Respiratory System (Official Version), 2017. –https: //www.youtube.com/watch? V = o3V4Z6EVz94
2. OSCE-1. Bogomolets NMU. Physical Cardiovascular Examination Methods (Official Version), 2017. –https: //www.youtube.com/watch? V = kgFHCzxEvVU & t = 68s
3. OSCE-1.MO Bogomolets NMU. Physical methods of GCT examination (official version), 2017. - https://www.youtube.com/watch?v=NAx7TTsWByc
4. OSCE-1 Bogomolets NMU. ECG Registration Technique (Official Version), 2017. - https://www.youtube.com/watch?v=16P0uuZK1CA&t=204s
5. The topic "General examination of the patient, examination of individual parts of the body"
- http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm
- http://meded.ucsd.edu/clinicalmed/
6. For the topics of the content module "Basic methods of examination of the respiratory system"
- http://meded.ucsd.edu/clinicalmed/
- http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm
7. For the topic of the content module "Basic methods of examination of the cardiovascular system"
- http://www.cardiologysite.com/
- http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm
- http://www.blaufuss.org/
- http://meded.ucsd.edu/clinicalmed/
8. For the topic of the content module "Basic methods of examination of the organs of the gastrointestinal tract and kidneys"
- http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm
- http://gastroresource.com/GITextbook/En/Default.htm
- http://meded.ucsd.edu/clinicalmed/

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