# MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SUMY STATE UNIVERSITY

Medical Institute
Family Medicine and Dermatovenerology Department

### PROPAEDEUTICS OF INTERNAL MEDICINE

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council of the Institute		
	(Faculty)	
Protocol dated	<u>№</u>	
Chairman of the Qualit	ty Council of the Institute	

(Faculty)

### DATA ON REVIEWS AND APPROVAL

Author

Ataman Yurii Oleksandrovych Zharkova Albina Volodymyrivna

Review of the course descriptor		
Considered and approved at the meeting of the Family Medicine and Dermatovenerology Department	Protocol datedN  Head of the Department	

### Data on the review:

		Amendments considered and approved			
Year	№ Annex with the description of amendments made	Approved by the work group of study programme, protocol №	Head of the study programme, signature	Approved by the Department, date and protocol №	Head of the Department

#### **SYLLABUS**

#### 1. General information on the course

Full course name	Propaedeutics of Internal Medicine	
Full official name of a higher education institution	Sumy State University	
Full name of a structural unit	Medical Institute. Family Medicine and Dermatovenerology Department	
Author(s)	Ataman Yurii Oleksandrovych, Zharkova Albina Volodymyrivna	
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle	
Semester	18 weeks across 6 semester	
Workload	4 ECTS, 120 hours, out of which 90 hours are working hours with the lecturer (20 hours of lectures, 70 hours of seminars), 30 hours self-study	
Language(s)	English	

### 2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"	
Prerequisites	Prerequisite for studying the discipline is the need for knowledge of: Latin and medical terminology, - medical biology, - medical informatics, - human anatomy, - physiology, - histology, cytology and embryology, - biological and bioorganic chemistry, - microbiology, virology and immunology, - care for the sick.	
Additional requirements	There are no specific requirements	
Restrictions	There are no specific restrictions	

#### 3. Aims of the course

The purpose of the discipline is to teach the student for the basics of clinical reasoning and the acquisition of professional competencies of examination of the patient and assessment of the main manifestations of diseases of internal organs in compliance with the principles of medical ethics and deontology.

#### 4. Contents

Topic 1 The role and place of Propaedeutics to Internal Medicine as a clinical discipline

Propaedeutics of internal medicine as an introduction to clinical practice. History of formation of propaedeutics of Internal Medicine in Ukraine and abroad. The main goals and objects of study of Internal Medicine. The main methods of examination of patients in the clinic of Internal Medicine: physical, instrumental, laboratory.

Topic 2 Inquiring the patient. General examination of the patient. Examination of individual parts of the body: head, neck, torso and limbs. Diagnostic value of symptoms detected during the examination of the patient.

Methods of interviewing the patient, its diagnostic value, taking into account the individual, intellectual and psychological characteristics of the patient. The main structural parts of the anamnesis (passport data, patient complaints, present illness history, interrogation of organs and systems, past history). Methods of 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), gait (types of posture and gait in various pathologies), posture (active, passive, forced, their types). Physique and basic criteria of normal constitutional body types. Determination and evaluation of body mass index. 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. Palpation of the thyroid glands. Diagnostic value of symptoms obtained during the general examination of the patient. Methods and sequence of examination of the head and neck, limbs and torso, abdomen and chest. Diagnostic value of the symptoms detected during inspection.

Topic 3 The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest.

The sequence of clarification and detailing of the most important subjective symptoms of respiratory system disorders and their semiological assessment. Features of clarifying the anamnesis of the disease and life. Methods of static and dynamic inspection 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, Biot, Kussmaul, Grocco), their characteristics and causes. The sequence of chest palpation, determination of vocal fremitus and semiological evaluation of its results.

Topic 4 Percussion as a method of physical examination of the lungs. Methods of comparative lung percussion. Methods of topographic percussion of the lungs. The main symptoms and syndromes based on lung percussion.

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. Algorithm for comparative lung percussion. The sequence of characteristics and diagnostic value of the obtained data.

Topic 5 Auscultation as a method of physical examination of the lungs. Method of lung auscultation. Basic respiratory noises. Additional respiratory noises (rales, crepitation, pleural friction noise).

History of development of auscultation 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. Methods for determining bronchophonia and its diagnostic value. Classification of additional respiratory noises (wheezing, crepitation, pleural friction noise). Causes of dry (wheezles) and wet (crackles) rales, their varieties. Diagnostic value of consonant and non-consonant rales. Conditions of crepitation and noise of friction of the pleura. 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.

Topic 6 Instrumental and laboratory methods of examination of patients with diseases of the respiratory system

The role of blood tests in the diagnosis of respiratory system diseases. Laboratory examination of sputum. Pleural puncture (technique and laboratory examination of the puncture). Indications and methods of spirometry, the main indicators are normal, changes in obstructive and restrictive variants of respiratory disorders. Pulse oximetry and study of arterial and venous blood gases. The principles and diagnostic value of bronchoscopy. X-ray examination of the chest, its varieties and diagnostic value. Computed tomography of the chest, the main indications for its implementation.

Topic 7 Pneumonia and pleurisy: symptoms and syndromes based on clinical-instrumental and laboratory research methods

Definition and modern classification of pneumonia (inpatient, nosocomial, aspiration, pneumonia in immunocompromised individuals), classification by the nature of lung damage. The main etiological factors of pneumonia. Complaints of patients and features of these physical methods of examination of patients with pleuro- and bronchopneumonia. Criteria for severe pneumonia. Possibilities of instrumental diagnostics of pulmonary tissue compaction. Laboratory signs of inflammatory syndrome in pneumonia. Pulmonary compaction syndrome. 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.

Topic 8 Bronchial obstruction syndrome. Chronic obstructive pulmonary disease. Asthma.

Definition and main mechanisms of development of COPD and asthma. The main complaints and data of physical examination of patients with COPD and asthma. Syndrome of bronchial obstruction, mucociliary insufficiency and increased lung ventilation. Basic methods of instrumental diagnostics. Important role of spirometry in diagnostics of bronchial obstruction. Laboratory signs of asthma according to the general analysis of blood and sputum research. Definition and main clinical manifestations of bronchiectasis.

Topic 9 Interviewing and examination of patients with diseases of the digestive system. Examination and superficial palpation of the abdomen. Deep sliding penetrative palpation of the intestines and stomach, liver, spleen, kidneys.

The sequence of clarification and detailing of complaints of a patient with pathology of the digestive system. Features of collecting medical history and life. 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 and hernias of the white line of the abdomen). Methods of ascites detection (survey, percussion, fluctuations). Projection of the gastrointestinal tract on the surface of the abdomen. The sequence of deep sliding penetrative palpation of the intestinal tract: normal parameters of the sigmoid, cecum, terminal ileum, ascending, descending and transverse colon. Methods for determining the lower edge of the stomach (percussion, palpation, stethoacoustic, splash noise). Percussion determination of the size and boundaries of the liver. Causes of increase and decrease in the size of the liver.

Topic 10 Instrumental and laboratory methods of examination of the digestive system.

Acquaintance with indications and methods of fibrogastroduodenoscopy and fibrocolonoscopy. Modern methods of studying the secretory and acid-producing activity of the stomach. Method of conducting multi-moment duodenal sounding, an. X-ray methods of examination of the gastrointestinal tract. Methods of intragastric pH-metry, fractional study of gastric juice, analysis of the obtained data. Methods of diagnosis of Helicobacter pylori. Methods of multi-moment duodenal sounding, analysis of the obtained data. Investigation of exocrine function of the pancreas and function of the small intestine.

Topic 11 Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes.

Definition and modern classification of gastritis and peptic ulcer in stomach and duodenum. The main etiological factors of these diseases. Contamination of Helicobacter pylori, conditions of damage to the gastric mucosa and duodenum. The main complaints of patients with chronic gastritis and peptic ulcer. 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. Gastric bleeding syndrome.

Topic 12 Intestinal diseases. Chronic pancreatitis. The main symptoms and syndromes.

The main symptoms and syndromes in patients with enteritis and colitis: intestinal dyspepsia syndrome, malabsorption and maldigestion syndromes. Enteropathy. The concept of irritable bowel syndrome. Chronic pancreatitis: etiology, pathogenesis, classification. Disorders of exocrine and endocrine function in chronic pancreatitis and methods of their assessment.

#### Topic 13 The main symptoms and syndromes in diseases of the biliary tract

Definition 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. Physical examination data 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 pathology of the biliary tract, laboratory diagnosis and the 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.

#### Topic 14 Main symptoms and syndromes in liver disease

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 the index of histological activity and Child-Pugh criteria. Syndromes of portal hypertension, liver failure and encephalopathy in liver disorders. The main complications of liver cirrhosis.

#### Topic 15 Chronic kidney disease. Renal failure. Urine examination

The concept of chronic kidney disease, definition, classification. Modern classification of chronic renal failure Urinary, nephrotic, nephritic syndromes in kidney disease. 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 and quantitative tests. The results of biochemical blood tests in renal pathology. Methods for determining the glomerular filtration rate.

Topic 16 The main symptoms and syndromes of kidney disease. Acute and chronic glomerulonephritis and pyelonephritis. Instrumental methods of diagnostics of urinary system.

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. Instrumental methods of research of urinary system.

Topic 17 Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system.

Diagnostic value of the main physical methods of examination of the circulatory system (interview, examination, palpation, percussion, auscultation). The sequence of clarification and detailing of complaints of a patient with cardiovascular pathology. Features of collecting medical history. Conducting a general examination of a cardiac patient. The concept of cardiovascular risk.

Topic 18 Study of pulse (arterial, venous, capillary) and blood pressure.

Vessels available to determine the pulse (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 deficiency, lability, orderliness, dichroic pulse. Rules for measuring blood pressure in the upper and lower extremities. Basic methods of determining blood pressure. The concept of Korotkoff'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

Topic 19 Examination and palpation of the precordium. Percussion of the boundaries of relative and absolute cardiac dullness, determination of the width of the vascular bundle.

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: apical shock (localization, area, force, height, resistance, displacement, causes of negative apical shock); 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. Structures forming the vascular bundle, percussion determination of its width.

Topic 20 Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs.

Methods and techniques of auscultation of the heart. 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. Sound accent. Sound changes in sound (clapping, muffled, velvet, metallic, cannon tones). The concept of splitting and reduplication of heart sounds, the reasons for their occurrence and temporal characteristics. Additional sounds - mitral valve opening sound, gallop rhythms (protodiastolic, mesodiastolic and presystolic gallop rhythm). Methodological 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. Causes and classification of cardiac noises (intracardiac and extracardiac, organic and functional, systolic and diastolic, noise of expulsion, filling, regurgitation).

Topic 21 Electrocardiographic method of studying heart function. Methods of ECG recording and decoding.

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.

Topic 22 Electrocardiographic examination of patients with nonarrhythmic heart disease.

Electrocardiographic signs of atrial and ventricular hypertrophy. Amplitude indices in the diagnosis of left ventricular hypertrophy. Romhilt-Estes score system. Pathological changes on the ECG in dysfunction of electrolyte metabolism. The concept of channelopathy. The role of long-term ECG recording and stress tests in the diagnosis of cardiovascular pathology. ECG diagnosis of complex pathology.

Topic 23 Electrocardiographic examination of patients with disorders of automatism and excitability.

The main structures that provide the function of automaticity of the heart. ECG signs of automatic disorders: sinus tachycardia, sinus bradycardia, sinus arrhythmia, sick sinus node syndrome. Premature contractions. ECG signs of sinus, atrial, atrioventricular and ventricular extrasystoles (PAC and PVC). Differentiation of right and left premature ventricular contractions. Classification of PVCs. Types of allorhythmia.

Topic 24 Electrocardiographic examination of patients with conduction disorders. ECG signs of combined heart rhythm disorders.

Pulse conduction time in different parts of the conduction system of the heart. 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 blockade of the left and right branch of the His bundle. Acquaintance with indications for carrying out and rules of performance of electro impulse therapy. ECG and clinical signs of atrial fibrillation and flutter. Clinical manifestations and ECG signs in ventricular fibrillation, paroxysmal ventricular tachycardia, ventricular fibrillation.

Topic 25 Instrumental methods of examination of the cardiovascular system.

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. The role of coronary angiography, computed tomography, magnetic resonance imaging in the modern diagnosis of cardiovascular pathology.

Topic 26 Heart failure syndrome: basic clinical and instrumental methods of examination. Acute and chronic vascular insufficiency.

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 data of instrumental and laboratory methods of research confirming 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.

Topic 27 Mitral valve diseases: main symptoms and syndromes based on clinical and instrumental methods of examination.

Definition of valve disorders. Rheumatic fever, modern classification and main clinical manifestations. The main causes and mechanisms of mitral regurgitation and mitral stenosis. Changes in hemodynamics in mitral heart disease. The main complaints of patients with mitral stenosis and mitral valve insufficiency. Examination data, palpation of the precordium and percussion in mitral valve diseases. 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.

Topic 28 Aortic valve disorders: main symptoms and syndromes based on clinical and instrumental methods of examination.

Etiological factors and mechanisms of aortic regurgitation and aortic stenosis. Changes in hemodynamics in aortic valve diseases. The main complaints of patients with aortic stenosis and aortic regurgitation. Examination data, palpation of the precordium and percussion in aortic valve disease. Auscultatory picture of aortic stenosis and aortic regurgitation. ECG and FCG signs of aortic valve disorders. Radiological signs of aortic valve disorders.

Topic 29 Main symptoms and syndromes of essential arterial hypertension

WHO / MTG 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 precordium, percussion of the boundaries of cardiac dullness and auscultation of the heart. ECG signs of myocardial changes in hypertension.

Topic 30 Symptomatic arterial hypertension. Hypertensive crises.

Symptomatic arterial hypertension. Classification. Features of the course. The concept of complicated and uncomplicated hypertensive crises. Basic principles of treatment of patients with arterial hypertension.

Topic 31 Chronic coronary heart disease: main symptoms and syndromes.

Definition of "coronary heart disease" (CHD). The main pathogenetic mechanisms and risk factors for coronary heart disease. Dyslipidemia. Atherosclerosis. Modern classification of coronary heart disease. Definition and main clinical manifestations of angina. Functional classes of stable angina. Methods of objective diagnosis of angina (ECG, daily ECG monitoring, stress tests, coronary angiography, heart scintigraphy).

Topic 32 Ischemic heart disease: main symptoms and syndromes in acute coronary syndrome

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.

Topic 33 Complete blood count. The main symptoms and syndromes of anemia.

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 anemia, 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 complete blood count.

Topic 34 The main syndromes in leukemia.

The concept of leukemia. The main syndromes of leukemia: leukemic, anemic, hemorrhagic, lymphadenopathy. Interpretation of hemogram and myelogram results in leukemia.

Topic 35 Final control of mastering practical skills in patient examination methods and their use for diagnosing the main syndromes of diseases of internal organs

Final control of practical and theoretical training in the discipline, assessment of students' knowledge and skills to identify basic symptoms and syndromes in analyzing the results of instrumental and laboratory methods of examination

### 5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Ability to collect medical information about the patient and analyze clinical data	
LO2	Ability to determine the required list of laboratory and instrumental studies and evaluate their results.	
LO3	Ability to establish a preliminary and clinical diagnosis of the disease.	
LO4	Collect information for decision-making, be responsible for them in standard and non-standard professional situations; adhere to the principles of deontology and ethics in professional activities.	
LO5	Solve typical and complex specialized tasks and practical problems in professional activity in the field of health care concerning diagnostics and basic approaches to treatment and prevention of internal organs diseases	

#### 6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

#### For 222 Medicine:

PO1	To detect and identify the leading clinical symptoms and syndromes (according to the List 1); to establish the most probable nosological or syndromic preliminary clinical diagnosis of diseases (according to the List 2) using standard methods, preliminary data of the patient's anamnesis, patient's examination data, and knowledge about a human, his organs and systems.
PO2	To collect information about the patient's general condition; to assess the patient's psychomotor and physical development and the state of organs and systems of the body; to assess information on the diagnosis (according to the List 4) based on laboratory and instrumental findings.
PO3	To order and analyze additional (mandatory and optional) examinations (laboratory, radiological, functional and/or instrumental) (according to the List 4) in order to perform a differential diagnosis of diseases (according to the List 2).
PO5	To detect the key clinical syndrome or the reason for patient's condition severity (according to the List 3) via informed decision and evaluation of the person's state under any circumstances (at home, in the street, at a healthcare facility), including under emergency and military operation conditions, in the field, with a lack of information and limited time.

PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms.
PO18	To search for the necessary information in the professional literature and databases; to analyze, evaluate, and apply this information. To apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems
PO19	To assess environmental impact on public health

#### 7. Teaching and learning activities

#### 7.1 Types of training

#### Topic 1. The role and place of Propaedeutics to Internal Medicine as a clinical discipline

lect.1 "The role and place of Propaedeutics to Internal Medicine as a clinical discipline. Inquiring the patient. General examination of the patient."

Propaedeutics of internal medicine as an introduction to clinical practice. History of formation of propaedeutics of Internal Medicine in Ukraine and abroad. The main goals and objects of study of Internal Medicine. The main methods of examination of patients in the clinic of Internal Medicine: physical, instrumental, laboratory.

pr.tr.1 "The role and place of Propaedeutics to Internal Medicine as a clinical discipline"

Propaedeutics of internal medicine as an introduction to clinical practice. History of formation of propaedeutics of Internal Medicine in Ukraine and abroad. The main goals and objects of study of Internal Medicine. The main methods of examination of patients in the clinic of Internal Medicine: physical, instrumental, laboratory.

Topic 2. Inquiring the patient. General examination of the patient. Examination of individual parts of the body: head, neck, torso and limbs. Diagnostic value of symptoms detected during the examination of the patient.

pr.tr.2 "Inquiring the patient. General examination of the patient. Examination of individual parts of the body: head, neck, torso and limbs. Diagnostic value of symptoms detected during the examination of the patient."

Methods of interviewing the patient, its diagnostic value, taking into account the individual, intellectual and psychological characteristics of the patient. The main structural parts of the anamnesis (passport data, patient complaints, present illness history, interrogation of organs and systems, past history). Methods of 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), gait (types of posture and gait in various pathologies), posture (active, passive, forced, their types). Physique and basic criteria of normal constitutional body types. Determination and evaluation of body mass index. 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. Palpation of the thyroid glands. Diagnostic value of symptoms obtained during the general examination of the patient. Methods and sequence of examination of the head and neck, limbs and torso, abdomen and chest. Diagnostic value of the symptoms detected during inspection.

## Topic 3. The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest.

lect.2 "The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest. Bronchial obstruction syndrome"

The sequence of clarification and detailing of the most important subjective symptoms of respiratory system disorders and their semiological assessment. Features of clarifying the anamnesis of the disease and life. Methods of static and dynamic inspection 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, Biot, Kussmaul, Grocco), their characteristics and causes. The sequence of chest palpation, determination of vocal fremitus and semiological evaluation of its results. Definition and main mechanisms of development of COPD and asthma. The main complaints and data of physical examination of patients with COPD and asthma. Syndrome of bronchial obstruction, mucociliary insufficiency and increased lung ventilation. Basic methods of instrumental diagnostics. Important role of spirometry in diagnostics of bronchial obstruction. Laboratory signs of asthma according to the general analysis of blood and sputum research. Definition and main clinical manifestations of bronchiectasis.

pr.tr.3 "The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest"

The sequence of clarification and detailing of the most important subjective symptoms of respiratory system disorders and their semiological assessment. Features of clarifying the anamnesis of the disease and life. Methods of static and dynamic inspection 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, Biot, Kussmaul, Grocco), their characteristics and causes. The sequence of chest palpation, determination of vocal fremitus and semiological evaluation of its results.

# Topic 4. Percussion as a method of physical examination of the lungs. Methods of comparative lung percussion. Methods of topographic percussion of the lungs. The main symptoms and syndromes based on lung percussion.

pr.tr.4 "Percussion as a method of physical examination of the lungs. Methods of comparative lung percussion. Methods of topographic percussion of the lungs. The main symptoms and syndromes based on lung percussion"

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. Algorithm for comparative lung percussion. The sequence of characteristics and diagnostic value of the obtained data.

# Topic 5. Auscultation as a method of physical examination of the lungs. Method of lung auscultation. Basic respiratory noises. Additional respiratory noises (rales, crepitation, pleural friction noise).

pr.tr.5 "Auscultation as a method of physical examination of the lungs. Method of lung auscultation. Basic respiratory noises. Additional respiratory noises (rales, crepitation, pleural friction noise)"

History of development of auscultation 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. Methods for determining bronchophonia and its diagnostic value. Classification of additional respiratory noises (wheezing, crepitation, pleural friction noise). Causes of dry (wheezles) and wet (crackles) rales, their varieties. Diagnostic value of consonant and non-consonant rales. Conditions of crepitation and noise of friction of the pleura. 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.

## Topic 6. Instrumental and laboratory methods of examination of patients with diseases of the respiratory system

pr.tr.6 "Instrumental and laboratory methods of examination of patients with diseases of the respiratory system"

The role of blood tests in the diagnosis of respiratory system diseases. Laboratory examination of sputum. Pleural puncture (technique and laboratory examination of the puncture). Indications and methods of spirometry, the main indicators are normal, changes in obstructive and restrictive variants of respiratory disorders. Pulse oximetry and study of arterial and venous blood gases. The principles and diagnostic value of bronchoscopy. X-ray examination of the chest, its varieties and diagnostic value. Computed tomography of the chest, the main indications for its implementation.

## Topic 7. Pneumonia and pleurisy: symptoms and syndromes based on clinical-instrumental and laboratory research methods

pr.tr.7 "Pneumonia and pleurisy: symptoms and syndromes based on clinical-instrumental and laboratory research methods"

Definition and modern classification of pneumonia (inpatient, nosocomial, aspiration, pneumonia in immunocompromised individuals), classification by the nature of lung damage. The main etiological factors of pneumonia. Complaints of patients and features of these physical methods of examination of patients with pleuro- and bronchopneumonia. Criteria for severe pneumonia. Possibilities of instrumental diagnostics of pulmonary tissue compaction. Laboratory signs of inflammatory syndrome in pneumonia. Pulmonary compaction syndrome. 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.

#### Topic 8. Bronchial obstruction syndrome. Chronic obstructive pulmonary disease. Asthma.

pr.tr.8 "Bronchial obstruction syndrome. Chronic obstructive pulmonary disease. Asthma"

Definition and main mechanisms of development of COPD and asthma. The main complaints and data of physical examination of patients with COPD and asthma. Syndrome of bronchial obstruction, mucociliary insufficiency and increased lung ventilation. Basic methods of instrumental diagnostics. Important role of spirometry in diagnostics of bronchial obstruction. Laboratory signs of asthma according to the general analysis of blood and sputum research. Definition and main clinical manifestations of bronchiectasis.

# Topic 9. Interviewing and examination of patients with diseases of the digestive system. Examination and superficial palpation of the abdomen. Deep sliding penetrative palpation of the intestines and stomach, liver, spleen, kidneys.

pr.tr.9 "Interviewing and examination of patients with diseases of the digestive system. Examination and superficial palpation of the abdomen. Deep sliding penetrative palpation of the intestines and stomach, liver, spleen, kidneys."

The sequence of clarification and detailing of complaints of a patient with pathology of the digestive system. Features of collecting medical history and life. 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 and hernias of the white line of the abdomen). Methods of ascites detection (survey, percussion, fluctuations). Projection of the gastrointestinal tract on the surface of the abdomen. The sequence of deep sliding penetrative palpation of the intestinal tract: normal parameters of the sigmoid, cecum, terminal ileum, ascending, descending and transverse colon. Methods for determining the lower edge of the stomach (percussion, palpation, stethoacoustic, splash noise). Percussion determination of the size and boundaries of the liver. Causes of increase and decrease in the size of the liver.

#### Topic 10. Instrumental and laboratory methods of examination of the digestive system.

pr.tr.10 "Instrumental and laboratory methods of examination of the digestive system."

Acquaintance with indications and methods of fibrogastroduodenoscopy and fibrocolonoscopy. Modern methods of studying the secretory and acid-producing activity of the stomach. Method of conducting multi-moment duodenal sounding, an. X-ray methods of examination of the gastrointestinal tract. Methods of intragastric pH-metry, fractional study of gastric juice, analysis of the obtained data. Methods of diagnosis of Helicobacter pylori. Methods of multi-moment duodenal sounding, analysis of the obtained data. Investigation of exocrine function of the pancreas and function of the small intestine.

## Topic 11. Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes.

lect.3 "Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes."

Definition and modern classification of gastritis and peptic ulcer in stomach and duodenum. The main etiological factors of these diseases. Contamination of Helicobacter pylori, conditions of damage to the gastric mucosa and duodenum. The main complaints of patients with chronic gastritis and peptic ulcer. 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. Gastric bleeding syndrome.

pr.tr.11 "Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes"

Definition and modern classification of gastritis and peptic ulcer in stomach and duodenum. The main etiological factors of these diseases. Contamination of Helicobacter pylori, conditions of damage to the gastric mucosa and duodenum. The main complaints of patients with chronic gastritis and peptic ulcer. 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. Gastric bleeding syndrome.

#### Topic 12. Intestinal diseases. Chronic pancreatitis. The main symptoms and syndromes.

pr.tr.12 "Intestinal diseases. Chronic pancreatitis. The main symptoms and syndromes."

The main symptoms and syndromes in patients with enteritis and colitis: intestinal dyspepsia syndrome, malabsorption and maldigestion syndromes. Enteropathy. The concept of irritable bowel syndrome. Chronic pancreatitis: etiology, pathogenesis, classification. Disorders of exocrine and endocrine function in chronic pancreatitis and methods of their assessment.

#### Topic 13. The main symptoms and syndromes in diseases of the biliary tract

pr.tr.13 "The main symptoms and syndromes in diseases of the biliary tract"

Definition 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. Physical examination data 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 pathology of the biliary tract, laboratory diagnosis and the 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.

#### Topic 14. Main symptoms and syndromes in liver disease

lect.4 "Main symptoms and syndromes in liver disease"

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 the index of histological activity and Child-Pugh criteria. Syndromes of portal hypertension, liver failure and encephalopathy in liver disorders. The main complications of liver cirrhosis.

#### pr.tr.14 "Main symptoms and syndromes in liver disease"

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 the index of histological activity and Child-Pugh criteria. Syndromes of portal hypertension, liver failure and encephalopathy in liver disorders. The main complications of liver cirrhosis.

#### Topic 15. Chronic kidney disease. Renal failure. Urine examination

lect.5 "Chronic kidney disease. Renal failure. Urine examination"

The concept of chronic kidney disease, definition, classification. Modern classification of chronic renal failure Urinary, nephrotic, nephritic syndromes in kidney disease. 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 and quantitative tests. The results of biochemical blood tests in renal pathology. Methods for determining the glomerular filtration rate.

#### pr.tr.15 "Chronic kidney disease. Renal failure. Urine examination"

The concept of chronic kidney disease, definition, classification. Modern classification of chronic renal failure Urinary, nephrotic, nephritic syndromes in kidney disease. 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 and quantitative tests. The results of biochemical blood tests in renal pathology. Methods for determining the glomerular filtration rate.

# Topic 16. The main symptoms and syndromes of kidney disease. Acute and chronic glomerulonephritis and pyelonephritis. Instrumental methods of diagnostics of urinary system.

pr.tr.16 "The main symptoms and syndromes of kidney disease. Acute and chronic glomerulonephritis and pyelonephritis. Instrumental methods of diagnostics of urinary system."

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. Instrumental methods of research of urinary system.

## Topic 17. Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system.

lect.6 "Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system."

Diagnostic value of the main physical methods of examination of the circulatory system (interview, examination, palpation, percussion, auscultation). The sequence of clarification and detailing of complaints of a patient with cardiovascular pathology. Features of collecting medical history. Conducting a general examination of a cardiac patient. The concept of cardiovascular risk. Vessels available to determine the pulse (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 deficiency, lability, orderliness, dichroic pulse. Rules for measuring blood pressure in the upper and lower extremities. Basic methods of determining blood pressure. The concept of Korotkoff'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

pr.tr.17 "Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system"

Diagnostic value of the main physical methods of examination of the circulatory system (interview, examination, palpation, percussion, auscultation). The sequence of clarification and detailing of complaints of a patient with cardiovascular pathology. Features of collecting medical history. Conducting a general examination of a cardiac patient. The concept of cardiovascular risk.

#### Topic 18. Study of pulse (arterial, venous, capillary) and blood pressure.

pr.tr.18 "Study of pulse (arterial, venous, capillary) and blood pressure."

Vessels available to determine the pulse (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 deficiency, lability, orderliness, dichroic pulse. Rules for measuring blood pressure in the upper and lower extremities. Basic methods of determining blood pressure. The concept of Korotkoff'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

## Topic 19. Examination and palpation of the precordium. Percussion of the boundaries of relative and absolute cardiac dullness, determination of the width of the vascular bundle.

pr.tr.19 "Examination and palpation of the precordium. Percussion of the boundaries of relative and absolute cardiac dullness, determination of the width of the vascular bundle."

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: apical shock (localization, area, force, height, resistance, displacement, causes of negative apical shock); 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. Structures forming the vascular bundle, percussion determination of its width.

# Topic 20. Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs.

lect.7 "Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs."

Methods and techniques of auscultation of the heart. 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. Sound accent. Sound changes in sound (clapping, muffled, velvet, metallic, cannon tones). The concept of splitting and reduplication of heart sounds, the reasons for their occurrence and temporal characteristics. Additional sounds - mitral valve opening sound, gallop rhythms (protodiastolic, mesodiastolic and presystolic gallop rhythm). Methodological 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. Causes and classification of cardiac noises (intracardiac and extracardiac, organic and functional, systolic and diastolic, noise of expulsion, filling, regurgitation).

pr.tr.20 "Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs"

Methods and techniques of auscultation of the heart. 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. Sound accent. Sound changes in sound (clapping, muffled, velvet, metallic, cannon tones). The concept of splitting and reduplication of heart sounds, the reasons for their occurrence and temporal characteristics. Additional sounds - mitral valve opening sound, gallop rhythms (protodiastolic, mesodiastolic and presystolic gallop rhythm). Methodological 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. Causes and classification of cardiac noises (intracardiac and extracardiac, organic and functional, systolic and diastolic, noise of expulsion, filling, regurgitation).

## Topic 21. Electrocardiographic method of studying heart function. Methods of ECG recording and decoding.

lect.8 "Electrocardiographic method of studying heart function. Methods of ECG recording and decoding"

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.

pr.tr.21 "Electrocardiographic method of studying heart function. Methods of ECG recording and decoding"

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.

#### Topic 22. Electrocardiographic examination of patients with nonarrhythmic heart disease.

pr.tr.22 "Electrocardiographic examination of patients with nonarrhythmic heart disease."

Electrocardiographic signs of atrial and ventricular hypertrophy. Amplitude indices in the diagnosis of left ventricular hypertrophy. Romhilt-Estes score system. Pathological changes on the ECG in dysfunction of electrolyte metabolism. The concept of channelopathy. The role of long-term ECG recording and stress tests in the diagnosis of cardiovascular pathology. ECG diagnosis of complex pathology.

## Topic 23. Electrocardiographic examination of patients with disorders of automatism and excitability.

lect.9 "Electrocardiographic examination of patients with disorders of automatism, excitability and conduction"

The main structures that provide the function of automaticity of the heart. ECG signs of automatic disorders: sinus tachycardia, sinus bradycardia, sinus arrhythmia, sick sinus node syndrome. Premature contractions. ECG signs of sinus, atrial, atrioventricular and ventricular extrasystoles (PAC and PVC). Differentiation of right and left premature ventricular contractions. Classification of PVCs. Types of allorhythmia. Pulse conduction time in different parts of the conduction system of the heart. 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 blockade of the left and right branch of the His bundle. Acquaintance with indications for carrying out and rules of performance of electro impulse therapy. ECG and clinical signs of atrial fibrillation and flutter. Clinical manifestations and ECG signs in ventricular fibrillation, paroxysmal ventricular tachycardia, ventricular fibrillation.

pr.tr.23 "Electrocardiographic examination of patients with disorders of automatism and excitability"

The main structures that provide the function of automaticity of the heart. ECG signs of automatic disorders: sinus tachycardia, sinus bradycardia, sinus arrhythmia, sick sinus node syndrome. Premature contractions. ECG signs of sinus, atrial, atrioventricular and ventricular extrasystoles (PAC and PVC). Differentiation of right and left premature ventricular contractions. Classification of PVCs. Types of allorhythmia.

## Topic 24. Electrocardiographic examination of patients with conduction disorders. ECG signs of combined heart rhythm disorders.

pr.tr.24 "Electrocardiographic examination of patients with conduction disorders. ECG signs of combined heart rhythm disorders"

Pulse conduction time in different parts of the conduction system of the heart. 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 blockade of the left and right branch of the His bundle. Acquaintance with indications for carrying out and rules of performance of electro impulse therapy. ECG and clinical signs of atrial fibrillation and flutter. Clinical manifestations and ECG signs in ventricular fibrillation, paroxysmal ventricular tachycardia, ventricular fibrillation.

#### Topic 25. Instrumental methods of examination of the cardiovascular system.

pr.tr.25 "Instrumental methods of examination of the cardiovascular system."

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. The role of coronary angiography, computed tomography, magnetic resonance imaging in the modern diagnosis of cardiovascular pathology.

## Topic 26. Heart failure syndrome: basic clinical and instrumental methods of examination. Acute and chronic vascular insufficiency.

pr.tr.26 "Heart failure syndrome: basic clinical and instrumental methods of examination. Acute and chronic vascular insufficiency"

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 data of instrumental and laboratory methods of research confirming 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

## Topic 27. Mitral valve diseases: main symptoms and syndromes based on clinical and instrumental methods of examination.

pr.tr.27 "Mitral valve diseases: main symptoms and syndromes based on clinical and instrumental methods of examination"

Definition of valve disorders. Rheumatic fever, modern classification and main clinical manifestations. The main causes and mechanisms of mitral regurgitation and mitral stenosis. Changes in hemodynamics in mitral heart disease. The main complaints of patients with mitral stenosis and mitral valve insufficiency. Examination data, palpation of the precordium and percussion in mitral valve diseases. 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.

## Topic 28. Aortic valve disorders: main symptoms and syndromes based on clinical and instrumental methods of examination.

pr.tr.28 "Aortic valve disorders: main symptoms and syndromes based on clinical and instrumental methods of examination."

Etiological factors and mechanisms of aortic regurgitation and aortic stenosis. Changes in hemodynamics in aortic valve diseases. The main complaints of patients with aortic stenosis and aortic regurgitation. Examination data, palpation of the precordium and percussion in aortic valve disease. Auscultatory picture of aortic stenosis and aortic regurgitation. ECG and FCG signs of aortic valve disorders. Radiological signs of aortic valve disorders.

#### Topic 29. Main symptoms and syndromes of essential arterial hypertension

pr.tr.29 "Main symptoms and syndromes of essential arterial hypertension"

WHO / MTG 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 precordium, percussion of the boundaries of cardiac dullness and auscultation of the heart. ECG signs of myocardial changes in hypertension.

#### Topic 30. Symptomatic arterial hypertension. Hypertensive crises.

pr.tr.30 "Symptomatic arterial hypertension. Hypertensive crises"

Symptomatic arterial hypertension. Classification. Features of the course. The concept of complicated and uncomplicated hypertensive crises. Basic principles of treatment of patients with arterial hypertension.

#### Topic 31. Chronic coronary heart disease: main symptoms and syndromes.

lect.10 "Chronic coronary heart disease: main symptoms and syndromes. Acute coronary syndrome"

Definition of "coronary heart disease" (CHD). The main pathogenetic mechanisms and risk factors for coronary heart disease. Dyslipidemia. Atherosclerosis. Modern classification of coronary heart disease. Definition and main clinical manifestations of angina. Functional classes of stable angina. Methods of objective diagnosis of angina (ECG, daily ECG monitoring, stress tests, coronary angiography, heart scintigraphy). 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.

pr.tr.31 "Chronic coronary heart disease: main symptoms and syndromes."

Definition of "coronary heart disease" (CHD). The main pathogenetic mechanisms and risk factors for coronary heart disease. Dyslipidemia. Atherosclerosis. Modern classification of coronary heart disease. Definition and main clinical manifestations of angina. Functional classes of stable angina. Methods of objective diagnosis of angina (ECG, daily ECG monitoring, stress tests, coronary angiography, heart scintigraphy).

## Topic 32. Ischemic heart disease: main symptoms and syndromes in acute coronary syndrome

pr.tr.32 "Ischemic heart disease: main symptoms and syndromes in acute coronary syndrome"

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.

#### Topic 33. Complete blood count. The main symptoms and syndromes of anemia.

pr.tr.33 "Complete blood count. The main symptoms and syndromes of anemia."

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 anemia, 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 complete blood count.

#### Topic 34. The main syndromes in leukemia.

pr.tr.34 "The main syndromes in leukemia"

The concept of leukemia. The main syndromes of leukemia: leukemic, anemic, hemorrhagic, lymphadenopathy. Interpretation of hemogram and myelogram results in leukemia.

## Topic 35. Final control of mastering practical skills in patient examination methods and their use for diagnosing the main syndromes of diseases of internal organs

pr.tr.35 "Final control of mastering practical skills in patient examination methods and their use for diagnosing the main syndromes of diseases of internal organs"

Final control of practical and theoretical training in the discipline, assessment of students' knowledge and skills to identify basic symptoms and syndromes in analyzing the results of instrumental and laboratory methods of examination

#### 7.2 Learning activities

LA1	Performing interactive exercises
LA2	Performing a group practical task
LA3	Performing situational exercises
LA4	E-learning in systems (the list is specified by the teacher, for example, Google Classroom, Zoom and in the format of the YouTube channel)
LA5	Discussion (chat, forum)
LA6	Discussion of cases
LA7	Preparation for lectures
LA8	Execution of practical tasks
LA9	Preparation for practical classes
LA10	Work with textbooks and relevant information sources
LA11	Solving situational problems
LA12	Self-study
LA13	Participation in discussion (group and pair)
LA14	Preparation for current and final control

#### 8. Teaching methods

Course involves learning through:

TM1	Case study
TM2	Demonstration method
TM3	Brainstorming
TM4	Think-pair-share
TM5	Peer interviews
TM6	Practice-oriented learning
TM7	Role play
TM8	Problem lectures

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which not only promote

the development of professional skills, but also stimulate creative and scientific activity and aimed at training practice-oriented specialists.

The discipline provides students with the following soft skills: GC 1. Ability to abstract thinking, analysis and synthesis. GC 2. Ability to learn, master modern knowledge and apply them in practical situations. GC 3. knowledge and understanding of the subject industry and understanding of professional activity. GC 5. Ability to make informed decisions; work in a team; skills interpersonal interaction. GC 7. Ability to use information and communication technologies of the GC 8. Definiteness and persistence in relation to the set tasks and responsibilities.

#### 9. Methods and criteria for assessment

#### 9.1. Assessment criteria

ECTS	Definition	National scale	Rating scale
	Outstanding performance without errors	5 (Excellent)	$170 \le RD \le 200$
	Above the average standard but with minor errors	4 (Good)	140 ≤ RD < 169
	Fair but with significant shortcomings	3 (Satisfactory)	$120 \le RD < 139$
	Fail – some more work required before the credit can be awarded	2 (Fail)	$0 \le RD < 119$

#### 9.2 Formative assessment

FA1	Express testing
FA2	Teacher's instructions in the process of performing practical tasks
FA3	Discussion and self-correction of work performed by students
FA4	Interviews and oral comments of the teacher on the results
FA5	Verification and evaluation of written assignments
FA6	Solving situational cases
FA7	Independent performance of situational exercises by students in practical classes and their discussion.

#### 9.3 Summative assessment

SA1	Execution of a practical case (preparation, presentation, defense)
SA2	Drawing up of complex written modular control

#### Form of assessment:

6 semester		80 scores
SA1. Execution of a practical case (preparation, presentation, defense)		52
	practical skills, laboratory tests, ecg record, spirometry record (4x13)	52
SA2. Drawing up of complex written modular control		

2x14 28
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Form of assessment (special cases):

6 semester			
SA2. Drawing up of complex written modular control			
	80		

When mastering the materials of the module, the student for each practical is assigned a maximum of 5 points lesson (the grade is set in the traditional 4-point grading system). At the end of the academic year, the arithmetic mean of calculated student performance is. The maximum number of points that a student can get in practical classes during the academic year - 120. The number of points of the student is calculated by the formula 100 multiplied by the arithmetic mean and divided by 5. The student is admitted to the exam if the requirements of the curriculum are met and if he for the current educational activity scored at least 72 points. Practice-oriented final module is conducted according to the schedule at the end of the semester. Examination tickets contain 4 practical (13 points each) and 2 theoretical questions (14 points each). The final module is credited to the student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project (defense of student work 12 points, presentation at the conference 5 points, poster presentation at the conference 4 points points). The total score in the discipline may not exceed 200 points.

#### 10. Learning resources

#### 10.1 Material and technical support

MTS1	Library funds
MTS2	Computers, computer systems and networks
MTS3	Models and mannequins
MTS4	Medical facilities and equipment (Sumy Regional Clinical Hospital for War Veterans, University Clinic)
MTS5	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smart boards, etc.)
MTS6	Instruments (measuring, mobile mini-laboratories, etc.)
MTS7	Technical toools (movies, radio and TV programs, sound and video recordings, etc.)

#### 10.2 Information and methodical support

Essential R	Essential Reading						
1	Bates' Guide to Physical Examination and History Taking /Ed. Lynn S. Bickley, Peter G. Szilagyi. – Wolters Kluwer, 2017. – 1066 p. Macleod's Clinical Examination / Ed. G.Douglas, F.Nicol, C.Robertson. – 13th ed. – Elsevier. 2013. – 471 p.						
2	Propedeutics of Internal Medicine: Part 1. Syndromes and diseases: textbook for English learning Students of higher medical schools / O.M.Kovalyova, S.O.Shapovalova, O.O.Nizhegorodtseva. — Ed.3. — Vinnytsia: Nova Knyha, 2017. — 264 p.						
3	Propedeutics of Internal Medicine: Part 2. Syndromes and diseases: textbook for English learning Students of higher medical schools / O.M.Kovalyova, S.O.Shapovalova, O.O.Nizhegorodtseva. — Ed.3. — Vinnytsia: Nova Knyha, 2017. — 264 p.						

4	Propaedeutics of Internal Medicine: Workbook. Clinical manual (IV a. l.) / V.Ye. Kondratiuk, V.A. Khomaziuk, I.V. Krasiuk et al Kiev, 2016 224 p.
Suppleme	ental Reading
1	Patient Care (Practical Course): textbook / O.M. Kovalyova, V.M. Lisovyi, R.S. Shevchenko et al. — 2nd edition– Kiev, 2018 P. 320
2	J. Larry Jameson, Anthony S. Fauci, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, Joseph Loscalzo, McGraw Hill . Harrison's Principles of Internal Medicine, 20e Professional, 2018. 3790p. Available from: https://accessmedicine.mhmedical.com/book.aspx?bookid=2129 Accessed 2018 Apr 30.
3	Stuart H. Ralston, Ian Penman, Mark W J Strachan, Richard Hobson Davidson's Principles and Practice of Medicine E-Bookm Elsevier Health Sciences, . 2018 1456 P. Available from: https://medstribune.com/davidson-medicine-pdf/. Accessed 2018 Fab 2
Web-base	ed and electronic resources
1	http://www.meddean.luc.edu/lumen/meded/medicine/puImonar/pd/contents.htm
2	https://www.msdmanuals.com/professional/cardiovascular-disorders/approach-to-the-cardiac-patient/cardiac-auscultation
3	https://www.skillstat.com/tools/ecg-simulator/
4	https://geekymedics.com/abdominal-examination/
5	https://www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation
6	https://www.mayoclinic.org/tests-procedures/complete-blood-count/about/pac-20384919
7	https://www.medicinenet.com/spirometry_test/article.htm

### **COURSE DESCRIPTOR**

Nº	Topic	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
full-ti	me course form of study						
1	The role and place of Propaedeutics to Internal Medicine as a clinical discipline	4	2	2	0	0	0
2	Inquiring the patient. General examination of the patient. Examination of individual parts of the body: head, neck, torso and limbs. Diagnostic value of symptoms detected during the examination of the patient.	4	0	2	0	2	0
3	The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest.	4	2	2	0	0	0
4	Percussion as a method of physical examination of the lungs. Methods of comparative lung percussion. Methods of topographic percussion of the lungs. The main symptoms and syndromes based on lung percussion.	2	0	2	0	0	0
5	Auscultation as a method of physical examination of the lungs. Method of lung auscultation. Basic respiratory noises. Additional respiratory noises (rales, crepitation, pleural friction noise).	2	0	2	0	0	0
6	Instrumental and laboratory methods of examination of patients with diseases of the respiratory system	2	0	2	0	0	0
7	Pneumonia and pleurisy: symptoms and syndromes based on clinical-instrumental and laboratory research methods	4	0	2	0	2	0
8	Bronchial obstruction syndrome. Chronic obstructive pulmonary disease. Asthma.	4	0	2	0	2	0
9	Interviewing and examination of patients with diseases of the digestive system. Examination and superficial palpation of the abdomen. Deep sliding penetrative palpation of the intestines and stomach, liver, spleen, kidneys.	2	0	2	0	0	0
10	Instrumental and laboratory methods of examination of the digestive system.	2	0	2	0	0	0
11	Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes.	6	2	2	0	2	0
12	Intestinal diseases. Chronic pancreatitis. The main symptoms and syndromes.	4	0	2	0	2	0
13	The main symptoms and syndromes in diseases of the biliary tract	4	0	2	0	2	0
14	Main symptoms and syndromes in liver disease	4	2	2	0	0	0

№	Торіс	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
15	Chronic kidney disease. Renal failure. Urine examination	6	2	2	0	2	0
16	The main symptoms and syndromes of kidney disease. Acute and chronic glomerulonephritis and pyelonephritis. Instrumental methods of diagnostics of urinary system.	4	0	2	0	2	0
17	Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system.	4	2	2	0	0	0
18	Study of pulse (arterial, venous, capillary) and blood pressure.	2	0	2	0	0	0
19	Examination and palpation of the precordium. Percussion of the boundaries of relative and absolute cardiac dullness, determination of the width of the vascular bundle.	2	0	2	0	0	0
20	Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs.	4	2	2	0	0	0
21	Electrocardiographic method of studying heart function. Methods of ECG recording and decoding.	4	2	2	0	0	0
22	Electrocardiographic examination of patients with nonarrhythmic heart disease.	2	0	2	0	0	0
23	Electrocardiographic examination of patients with disorders of automatism and excitability.	6	2	2	0	2	0
24	Electrocardiographic examination of patients with conduction disorders. ECG signs of combined heart rhythm disorders.	4	0	2	0	2	0
25	Instrumental methods of examination of the cardiovascular system.	2	0	2	0	0	0
26	Heart failure syndrome: basic clinical and instrumental methods of examination. Acute and chronic vascular insufficiency.	4	0	2	0	2	0
27	Mitral valve diseases: main symptoms and syndromes based on clinical and instrumental methods of examination.	2	0	2	0	0	0
28	Aortic valve disorders: main symptoms and syndromes based on clinical and instrumental methods of examination.	2	0	2	0	0	0
29	Main symptoms and syndromes of essential arterial hypertension	4	0	2	0	2	0
30	Symptomatic arterial hypertension. Hypertensive crises.	2	0	2	0	0	0
31	Chronic coronary heart disease: main symptoms and syndromes.	4	2	2	0	0	0

Nº	Торіс	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
32	Ischemic heart disease: main symptoms and syndromes in acute coronary syndrome	4	0	2	0	2	0
33	Complete blood count. The main symptoms and syndromes of anemia.	4	0	2	0	2	0
34	The main syndromes in leukemia.	4	0	2	0	2	0
35	Final control of mastering practical skills in patient examination methods and their use for diagnosing the main syndromes of diseases of internal organs	2	0	2	0	0	0
Total	(full-time course form of study)	120	20	70	0	30	0
part-	time course form of study			•			
1	The role and place of Propaedeutics to Internal Medicine as a clinical discipline	4	2	2	0	0	0
2	Inquiring the patient. General examination of the patient. Examination of individual parts of the body: head, neck, torso and limbs. Diagnostic value of symptoms detected during the examination of the patient.	4	0	2	0	2	0
3	The main complaints of patients with respiratory diseases. Static and dynamic inspection of the chest. Palpation of the chest.	4	2	2	0	0	0
4	Percussion as a method of physical examination of the lungs. Methods of comparative lung percussion. Methods of topographic percussion of the lungs. The main symptoms and syndromes based on lung percussion.	2	0	2	0	0	0
5	Auscultation as a method of physical examination of the lungs. Method of lung auscultation. Basic respiratory noises. Additional respiratory noises (rales, crepitation, pleural friction noise).	2	0	2	0	0	0
6	Instrumental and laboratory methods of examination of patients with diseases of the respiratory system	2	0	2	0	0	0
7	Pneumonia and pleurisy: symptoms and syndromes based on clinical-instrumental and laboratory research methods	4	0	2	0	2	0
8	Bronchial obstruction syndrome. Chronic obstructive pulmonary disease. Asthma.	4	0	2	0	2	0
9	Interviewing and examination of patients with diseases of the digestive system. Examination and superficial palpation of the abdomen. Deep sliding penetrative palpation of the intestines and stomach, liver, spleen, kidneys.	2	0	2	0	0	0
10	Instrumental and laboratory methods of examination of the digestive system.	2	0	2	0	0	0

Nº	Торіс	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
11	Clinical and instrumental and laboratory studies of patients with chronic gastritis, peptic ulcer in stomach and duodenum. The main symptoms and syndromes.	6	2	2	0	2	0
12	Intestinal diseases. Chronic pancreatitis. The main symptoms and syndromes.	4	0	2	0	2	0
13	The main symptoms and syndromes in diseases of the biliary tract	4	0	2	0	2	0
14	Main symptoms and syndromes in liver disease	4	2	2	0	0	0
15	Chronic kidney disease. Renal failure. Urine examination	6	2	2	0	2	0
16	The main symptoms and syndromes of kidney disease. Acute and chronic glomerulonephritis and pyelonephritis. Instrumental methods of diagnostics of urinary system.	4	0	2	0	2	0
17	Physical methods of examination of cardiovascular system. Interviewing and general examination of patients with pathology of the cardiovascular system.	4	2	2	0	0	0
18	Study of pulse (arterial, venous, capillary) and blood pressure.	2	0	2	0	0	0
19	Examination and palpation of the precordium. Percussion of the boundaries of relative and absolute cardiac dullness, determination of the width of the vascular bundle.	2	0	2	0	0	0
20	Auscultation of the heart. Normal heart sounds, splitting and reduplication of sounds, additional sounds (quail rhythm, gallop rhythm). Organic and functional heart murmurs.	4	2	2	0	0	0
21	Electrocardiographic method of studying heart function. Methods of ECG recording and decoding.	4	2	2	0	0	0
22	Electrocardiographic examination of patients with nonarrhythmic heart disease.	2	0	2	0	0	0
23	Electrocardiographic examination of patients with disorders of automatism and excitability.	6	2	2	0	2	0
24	Electrocardiographic examination of patients with conduction disorders. ECG signs of combined heart rhythm disorders.	4	0	2	0	2	0
25	Instrumental methods of examination of the cardiovascular system.	2	0	2	0	0	0
26	Heart failure syndrome: basic clinical and instrumental methods of examination. Acute and chronic vascular insufficiency.	4	0	2	0	2	0
27	Mitral valve diseases: main symptoms and syndromes based on clinical and instrumental methods of examination.	2	0	2	0	0	0

No	Topic	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
28	Aortic valve disorders: main symptoms and syndromes based on clinical and instrumental methods of examination.	2	0	2	0	0	0
29	Main symptoms and syndromes of essential arterial hypertension	4	0	2	0	2	0
30	Symptomatic arterial hypertension. Hypertensive crises.	2	0	2	0	0	0
31	Chronic coronary heart disease: main symptoms and syndromes.	4	2	2	0	0	0
32	Ischemic heart disease: main symptoms and syndromes in acute coronary syndrome	4	0	2	0	2	0
33	Complete blood count. The main symptoms and syndromes of anemia.	4	0	2	0	2	0
34	The main syndromes in leukemia.	4	0	2	0	2	0
35	Final control of mastering practical skills in patient examination methods and their use for diagnosing the main syndromes of diseases of internal organs	2	0	2	0	0	0
Total (part-time course form of study)		120	20	70	0	30	0

	UNIVERISTY POLICIES FOR THE COURSE «Propaedeutics of Internal Medicine»  Higher education level The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle Major: Educational programme 222 Medicine: Medicine Year of study 2021 Semester 6 semester Mode of study for all forms of education Language of instruction English				
Teacher(s)	Ataman Yurii Oleksandrovych, Zharkova Albina Volodymyrivna				
Contact	Albina Zharkova a.zharkova@med.sumdu.edu.ua Ataman Yurii ata_card@ukr.net				
Time and room for giving consultations	University Clinic Thursday 3 pm - 5 pm				
Links to online educational platforms	elearning.sumdu.edu.ua/s/3b-ie9 GoogleMeet, Zoom, MixLearning according to the teacher's link				
Syllabus	http://pg.cabinet.sumdu.edu.ua/report/syllabus/1394671				
Channels for maintaining contact with the group for receiving and working on materials	E-mail, Viber, WhatsApp, Telegram				
POLICIES					
Attendance policy	The student must attend 100% of practical and 60% of lectures. In case of skipping classes, the student must work missed class in accordance with the schedule of exercises, approved by the department in the presence of the relevant order of the dean's office.				

Assessment policy	When mastering the materials of the module, the student for each practical is assigned a maximum of 5 points lesson (the grade is set in the traditional 4-point grading system). At the end of the academic year, the arithmetic mean of calculated student performance is. The maximum number of points that a student can get in practical classes during the academic year - 120. The number of points of the student is calculated by the formula 100 multiplied by the arithmetic mean and divided by 5. The student is admitted to the exam if the requirements of the curriculum are met and if he for the current educational activity scored at least 72 points. Practice-oriented final module is conducted according to the schedule at the end of the semester. Examination tickets contain 4 practical (13 points each) and 2 theoretical questions (14 points each). The final module is credited to the student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project (defense of student work 12 points, presentation at the conference 5 points, poster presentation at the conference 4 points points). The total score in the discipline may not exceed 200 points.
Deadlines and course retake policy	The results of the evaluation may be subject to appeal modular and semester certifications. To do this, the applicant has file an appeal to the director / dean on the day of the meeting attestation event or after the announcement of its results assembly, but not later than the next working day. By by the order of the director the commission on consideration is created appeals. According to the decision of the appeal commission, the assessment may change in this case establishment of violations during attestations.
Assessment appeals policy	The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.
Academic integrity policy	Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.