MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
MINISTRY OF EDUCATION, SCIENCE, AND INNOVATION OF THE KYRGYZ REPUBLIC

IEO HE Kyrgyz-Russian Slavic University
named after the First President of the Russian Federation B.N. Yeltsin

ENDORSED
Dean of the Faculty

_____

23.10. 2025 y.

Intermediate Course of Therapy

Course Outline (Module)

Assigned to	**Department of Therapy №2 (specialty "General Medicine")**
Academic Curriculum	25_1 LDi. plx 560001 Specialty General Medicine (for foreign students)
Qualification	**Physician (General Medicine)**
Mode of Study	**Intramural (full-time)**
Total Credit Value	**7 credit points**

Course Hours	210
including:	
in-class learning	128
individual work	51.7
	29.5

Scope of Testing Semesters:
exam 6
credit 5

Distribution of course hours by semester

Semester Academic Year	5 (3.1)		6 (3.2)		Total	
Weeks	18		18			
Type of activity	AC	CO	AC	CO	AC	CO
Lectures	16	16	16	16	32	32
Practical	48	48	48	48	96	96
Contact work during the theoretical training period	0.3	0.3			0.3	0.3
Contact work during the examination session			0.5	0.5	0.5	0.5
Including Interactive Session	4	4	4	4	8	8
Total In-class Session	64	64	64	64	128	128
Face-to-face Learning	64.3	64.3	64.5	64.5	128.8	128.8
Individual Work	25.7	25.7	26	26	51.7	51.7
Control hours			29.5	29.5	29.5	29.5
Total	90	90	120	120	210	210

The course outline developed by:
PhD, MD, Associate Professor K.A. Dzhailobaeva; PhD, MD, Associate Professor Z.T. Radzhapova

Reviewer(s):
PhD, MD, Associate Professor Suranova G.Zh.

Course Outline of the discipline
Intermediate Course of Therapy

in accordance with the Academic Curriculum:
Specialty 560001 - KR General Medicine (for foreign students)
confirmed by KRSU Board of Academics in 30. 06. 2025Y record № 13

The Course Outline endorsed at the Meeting of the Therapy Department № 2 Specialty "General Medicine"

Record of 26.08.2025 y. № 1
Program Validity period: 2020-2025 academic years
The Head of Department: MD, DMedSc, Professor I.S. Sabirov

Approval of the RPD for implementation in the next academic year

Chairman of the UMS
__ _____ 2026

The work program was reviewed, discussed and approved for
execution in the 2026-2027 academic year at a department meeting

Protocol dated __ _____ 2026 No. __
Head of the Department Sabirov I.S.

Approval of the RPD for implementation in the next academic year

Chairman of the UMS
__ _____ 2027

The work program was reviewed, discussed and approved for
execution in the 2027-2028 academic year at a department meeting

Protocol dated __ _____ 2027 No. __
Head of the Department Sabirov I.S.

Approval of the RPD for implementation in the next academic year

Chairman of the UMS
__ _____ 2028

The work program was reviewed, discussed and approved for
execution in the 2028-2029 academic year at a department meeting

Protocol dated __ _____ 2028 No. __
Head of the Department Sabirov I.S.

Approval of the RPD for implementation in the next academic year

Chairman of the UMS
__ _____ 2029

The work program was reviewed, discussed and approved for
execution in the 2029-2030 academic year at a department meeting

Protocol dated __ _____ 2029 No. __
Head of the Department Sabirov I.S.

1. COURSE OUTLINE OBJECTIVES	
1.1	Training in a complete clinical examination of a medical patient with the most common diseases of internal organs, occurring in their typical ("classical") form; formulation of a detailed clinical diagnosis, according to the modern classification;
1.2	Consolidation and expansion of practical skills in examining a medical patient;
1.3	Teaching independent clinical thinking skills to future physicians.
1.4	Training in the main nosological forms of occupational diseases;

2. THE PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM	
OOP cycle (section):	B1.O.03
2.1	**Students' preliminary training requirements:**
2.1.1	Pathophysiology, clinical pathophysiology
2.1.2	Propedeutics of internal diseases
2.1.3	Pharmacology
2.1.4	Pathological anatomy
2.1.5	Psychology and Pedagogy
2.1.6	Normal physiology
2.2	**Disciplines and practices for which mastery of this course (module) is required as a prerequisite:**
2.2.1	Clinical Practice "Physician Assistant"
2.2.2	Clinical Practice " Physician Assistant in an Outpatient Clinic"
2.2.3	Hospital therapy
2.2.4	Policlinic therapy
2.2.5	Standards for the diagnosis and treatment of internal diseases
2.2.6	Family medicine
2.2.7	Evidence-based medicine

3. STUDENT COMPETENCIES DEVELOPED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)	
PC-15: Capable and ready to implement preventive measures to prevent infectious, parasitic and non-infectious diseases, monitor their effectiveness, promote a healthy lifestyle and educate the population on sanitary and hygienic issues.	
Knowledge:	
	-Fundamentals of epidemiology and prevention of infectious, parasitic and non-infectious diseases. - Principles of vaccination, sanitary and hygienic standards, healthy lifestyle. - Methods for assessing the effectiveness of preventive measures.
Skills:	
	- Conduct preventive examinations, screening, vaccination. - Identify and eliminate risk factors for diseases. - Evaluate the results of preventive programs and adjust them. -Organize health education work.
Expertise:	
	- Skills in applying sanitary and hygienic requirements in practice. - Methods of epidemiological control and monitoring. - Techniques of motivational counseling for a healthy lifestyle.

PC-9: Capable and ready to perform basic therapeutic measures for acute illnesses, conditions and exacerbations of chronic diseases that are not accompanied by a threat to the life of an adult patient and do not require emergency medical care in outpatient and inpatient settings.	
Knowledge:	
	Clinical manifestations, causes, and pathogenesis of the most common acute and chronic diseases that do not require emergency medical care. Principles for organizing outpatient care and managing patients with exacerbations of chronic diseases. Current standards and clinical guidelines for diagnosis, treatment, and monitoring of patients in outpatient and inpatient settings.
Skills:	

	Assess the patient's condition, make a diagnosis and determine the necessary amount of treatment in cases that are not life-threatening. Prescribe adequate drug therapy and monitor its effectiveness and safety. Prevent exacerbations of chronic diseases and provide educational support on adherence to treatment regimens, diet, and lifestyle changes.
Expertise:	
	Skills in carrying out basic treatment and diagnostic procedures in an outpatient setting. Individualized approaches to managing patients with chronic diseases in remission and exacerbation. Skills in monitoring, assessing the effectiveness of therapy and promptly referring patients to a specialist if necessary.

PC-8: Able and ready to use the algorithm of diagnostic measures to identify diseases, emergency and life-threatening conditions based on the results of clinical, laboratory and instrumental studies of organs, systems and the body as a whole to establish a diagnosis (primary, concomitant, complications) taking into account the ICD.	
Knowledge:	
	Principles of clinical diagnostics: diagnostic stages, diagnosis structure (underlying disease, comorbidities, complications), and rules for formulating it. The International Classification of Diseases (ICD), its structure, and rules for coding diseases and conditions. Clinical signs and pathogenetic mechanisms of emergency and life-threatening conditions (shock, myocardial infarction, pulmonary embolism, stroke, acute respiratory failure, etc.).
Skills:	
	Apply diagnostic algorithms based on complaints, medical history, physical examination data, laboratory and instrumental studies. Formulate a clinical diagnosis taking into account the requirements of the ICD and disease classification rules. Recognize emergency conditions, conduct a primary diagnosis, and assess the severity of the patient's condition.
Expertise:	
	Skills in coding diagnoses according to the ICD, taking into account the underlying disease, comorbidities, and complications. Diagnostic search algorithms for acute and life-threatening conditions and methods for their early detection. Methods for making clinical decisions and triaging patients in emergency departments.

PC-7: Able and willing to conduct and interpret interviews, physical examinations, clinical examinations, results of modern laboratory and instrumental studies, and fill out medical records for outpatients and inpatients.	
Knowledge:	
	Methods for collecting and analyzing patient complaints, medical history data, indications and contraindications for additional laboratory and instrumental research methods.
Skills:	
	To interview, collect complaints and anamnesis from outpatients and inpatients of adults and children , using methods and means of medical examination and diagnostic measures.
Expertise:	
	Skills in prescribing the necessary laboratory and instrumental research methods in outpatient and inpatient settings, as well as skills in preparing medical histories and maintaining outpatient cards for adults and children.

PC-5: Capable and ready to work with medical equipment and medical instruments used in working with patients, and to apply the capabilities of modern information technologies to solve professional problems.	
Knowledge:	
	Principles of working with medical and technical equipment used in working with patients, be proficient in computer technology, obtain information from various sources, work with information in global computer networks, apply the possibilities of modern information technologies for solving professional problems, the basic patterns of development and functioning of the human body based on the structural organization of all levels;
Skills:	
	Understands the principles of working with medical and technical equipment used in work with patients, has computer skills, receives information from various sources, works with information in global computer networks, applies the capabilities of modern information technologies to solve professional problems, the basic patterns of development and vital activity of the human body based on the structural organization of all levels;

Expertise:	
	Capable of working with medical and technical equipment used in work with patients, be proficient in computer technology, receive information from various sources, work with information in global computer networks, apply the possibilities of modern information technologies for solving professional problems, the basic patterns of development and functioning of the human body based on the structural organization of all levels;

As a result of mastering the discipline, the student must

3.1	**Knowledge:**
3.1.1	Definition of the disease, etiology, risk factors (RF), pathogenesis, pathomorphology (remodeling of internal organs), classification, clinical picture, laboratory and instrumental diagnostics, treatment principles, primary and secondary prevention, prognosis of the most common diseases of internal organs occurring in their typical "classical form": diseases of the respiratory system: chronic obstructive bronchitis within the framework of COPD, community-acquired pneumonia, bronchiectasis, atopic bronchial asthma, chronic pulmonary heart disease; diseases of the circulatory system: atherosclerosis and hyperlipidemia (HLP), coronary heart disease (CHD): angina pectoris, acute myocardial infarction (AMI), hypertension (HTN), certain forms of symptomatic arterial hypertension (AH): nephrogenic, vasorenal, with primary hyperaldosteronism, pheochromocytoma, coarctation of the aorta; infective endocarditis, infective myocarditis, mitral and aortic defects, congenital heart defects in adults: atrial septal defect, ventricular septal defect, coarctation of the aorta, pulmonary artery stenosis, tetralogy of Fallot, chronic heart failure (CHF); connective tissue diseases: acute rheumatic fever (ARF), rheumatoid arthritis, gout, osteoarthritis, systemic lupus erythematosus (SLE); diseases of the gastrointestinal tract (GIT): chronic gastritis, gastric ulcer and duodenal ulcer, biliary dyskinesia (BD) and chronic acalculous cholecystitis, chronic hepatitis and cirrhosis of the liver; diseases of the urinary system: acute and chronic glomerulonephritis, chronic pyelonephritis; diseases of the blood system: iron, B12 and folate deficiency anemia.
3.1.2	Etiology, pathogenesis, clinical picture, diagnostic methods and provision of emergency care for the following urgent conditions:
3.1.3	•an attack of bronchial asthma;
3.1.4	•hypertensive crises, complicated and uncomplicated;
3.1.5	•AMI – as an emergency condition;
3.1.6	•primary circulatory arrest (ventricular fibrillation) as a complication of myocardial infarction;
3.1.7	Officially approved classifications of diseases.
3.1.8	List the complications of diseases.
3.1.9	Methods of drug therapy, treatment regimens, indications and contraindications for the use of medicinal products (MP).
3.1.10	Methods of primary and secondary prevention of the studied diseases of internal organs.
3.1.11	Prognosis of diseases, risk factors for the development of life-threatening conditions.
3.1.12	Scheme and rules for filling out, registration of the medical history of the supervised patient.
3.1.13	To consolidate clinical: quantitative and qualitative criteria of electrocardiograms (ECG) in the norm, with hypertrophy of the atria and ventricles, with chronic and acute forms of coronary heart disease (during an attack of angina pectoris,
3.2	**Skills:**
3.2.1	To recognize and correctly diagnose the most common diseases of internal organs in their typical course.
3.2.2	Assess the activity of the pathological process, its form, stage and phase of progression in accordance with officially approved classifications, the presence and severity of complications.
3.2.3	Draw up a plan for laboratory and instrumental examination to confirm the suspected diagnosis and interpret the results obtained.
3.2.4	Formulate a detailed clinical diagnosis, guided by the modern classification of diseases;
3.2.5	To detail the diagnosis of a specific patient, namely, the etiology, mechanism of development and pathomorphology of the disease, and to identify complications.
3.2.6	To substantiate the underlying disease clinical diagnosis in a specific patient by assessing the examination results and identifying the diagnostic criteria for this disease.
3.2.7	To substantiate the etiology of the patient's disease.
3.2.8	Prescribe adequate individual therapy by completing the “Prescription Sheet” and “Temperature Sheet” for the supervised patient.

3.2.9	To formulate a non-drug and drug treatment plan for the patient in accordance with the diagnosis and morphological changes, including determining the indications and therapeutic contraindications for surgical intervention and its urgency.
3.2.10	To determine the prognosis of the disease for life in a specific patient.
3.2.11	Determine measures of primary and secondary prevention; the latter (including) for the supervised patient.
3.2.12	Recognize the clinical manifestations of certain emergency conditions (asthma attacks, hypertensive crises, primary circulatory arrest), conduct a detailed assessment of the condition, perform emergency diagnostics, and have the skills to provide emergency medical care.
3.2.13	To solve deontological problems related to the diagnosis, treatment and prevention of internal diseases.
3.2.14	Decipher the ECG in normal conditions, with atrial and ventricular hypertrophy, and various forms of coronary heart disease.
3.3	**Expertise:**
3.3.1	Methods of collecting complaints and patient history;
3.3.2	Methods of propaedeutics of various body systems: examination, palpation, percussion and auscultation of internal organs according to the module;
3.3.3	Skills in interpreting anamnesis data, objective examination of the patient, his laboratory and instrumental data;
3.3.4	Skills in expressing an independent point of view, analysis and logical thinking, public speaking, ethical argumentation, conducting discussions and round tables, principles of medical deontology and medical ethics;
3.3.5	Skills in informing patients and their relatives;
3.3.6	Skills in a foreign language sufficient for communication and obtaining information from foreign sources.

4. COURSE (MODULE) STRUCTURE AND CONTENT

Lesson code	Name of sections and topics /type of lesson/	Semester / Course	Hours	Competent-tions	Literature	Inte ract.	Pr. prep.	Note
	Section 1. Pulmonology							
1.1	Chronic obstructive pulmonary disease. Bronchial asthma, asthma attack . Community-acquired pneumonia. Bronchiectasis . Pulmonary arterial hypertension and chronic pulmonary heart disease. /Lek/	5	4	PC-5	L1.1 L1.3L3.1 L3.2 L3.3 E1 E2			
1.2	Chronic obstructive pulmonary disease. Bronchial asthma, asthma attack . Case Study #1. Community-acquired pneumonia. Bronchiectasis. Pulmonary arterial hypertension and chronic pulmonary heart disease. Case Study #2. /Pr/	5	18	PC-5	L1.1 L1.2 L1.3 L1.4 L1.5L2.1			Work in the Accreditation and Simulation Training Center (ASTC) Auscultation of the lungs in pneumonia, bronchial asthma, COPD, and broncho-ectasis.

1.3	respiratory diseases . Functional research methods in pulmonology (spirometry, peak flowmetry). The mechanism of bronchial obstruction development in COPD. Principles of antibacterial therapy for community-acquired pneumonia. Treatment of bronchial asthma in a mountain climate. Pathophysiology of pulmonary hypertension. Pathogenesis of pulmonary heart disease. Euler-Liljestrand phenomenon . /Wed/	5	7.7	PC-5	L1.3			
	Section 2. Cardiology							
2.1	Atherosclerosis, hyperlipidemia. CHD. Angina pectoris. CHD. Acute myocardial infarction. Treatment of AMI. The concept of AMI complications , primary circulatory arrest (ventricular fibrillation). Hypertension , hypertensive crises. Symptomatic arterial hypertension . Heart failure, cardiac asthma . Infectious myocarditis. Congenital heart defects . /Lecture/	5	10	PC-5	L1.1 L1.3 E1 E2			
2.2	Atherosclerosis. CHD. Angina. (I) CHD. Acute myocardial infarction. Treatment of AMI. Complications of AMI, primary circulatory arrest (sudden cardiac death) (I). Hypertension, hypertensive crises. Symptomatic arterial hypertension (I). CR No. 3. Heart failure. Myocarditis. Congenital heart defects. CR No. 4 /Pr/	5	30	PC-5	L1.2 L1.3 L1.4	4		Practical session in the ASTC: Protocol of ECG reading. CPR in SCD

2.3	ECG Interpretation Protocol. The Role of Risk Factors for Coronary Heart Disease. Coronary Heart Disease. AMI, Course Variations, and Clinical Presentation Depending on the Development of Complications. AMI as an Emergency. Indications and Contraindications for Stress Testing in Coronary Heart Disease. Diagnostic Search for Hypertension	5	18		L1.3 E1			Reports, presentations
2.4	/KrTO/	5	0.3					
	Section 3. Rheumatology							

3.1	Acute rheumatic fever Mitral valve defects /Lek/	5	2	PC-5	L1.1 L1.3 E1 E2			
3.2	Aortic defects Infective endocarditis Rheumatoid arthritis Systemic lupus erythematosus Gout, osteoarthritis /Lek/	6	6	PC-5	L1.3			
3.3	Acute rheumatic fever Mitral defects (I) Aortic defects (I) /Pr/	6	8	PC-5	L1.2 L1.3 L1.4	2		Conducting classes in the ASTC: Auscultation on a model for changes in heart sounds and the presence of murmurs associated with mitral and arterial valve defects . Analysis of X-ray films for these defects.
3.4	Mitral valve defects I) Aortic valve defects (I) Infective endocarditis KR No. 5 Rheumatoid arthritis (I) Systemic lupus erythematosus Gout and osteoarthritis. KR No. 6 /Pr/	6	24	PC-5	L1.3	2		Conducting classes in the ASTC: cardiac auscultation in rheumatoid arthritis and systemic lupus erythematosus
3.5	Propaedeutics of articular syndrome. Methods of auscultation of heart murmurs. /Wed/	6	10	PC-5	L1.3			Reports, presentations
	Section 4. Gastroenterology							
4.1	Chronic gastritis, gastric ulcer, duodenal ulcer Chronic hepatitis Liver cirrhosis Chronic enterocolitis /Lek/	6	6	PC-5	L1.1 L1.3 E1 E2			
4.2	Chronic gastritis Gastric ulcer, duodenal ulcer. (I) Biliary dyskinesia, chronic cholecystitis, the concept of cholangitis Chronic hepatitis Liver cirrhosis KR No. 7 /Pr/	6	8	PC-5	L1.2 L1.3 L1.4			Conducting classes in the ASTC: Conducting a methodology for determining the level of HP infection in patients with gastric diseases .

4.3	Propaedeutics for diseases of the digestive system The importance of gastroscopy, indications, contraindications Diagnostic methods for HP infection. Principles of eradication therapy for HP infection. Liver function and its assessment parameters. Markers of chronic viral infection in hepatitis and liver cirrhosis. Modern antiviral therapy for chronic hepatitis and liver cirrhosis. /Wed/	6	10	PC-5	L1.3			Reports, presentations
	Section 5. Nephrology							
5.1	Acute and chronic glomerulonephritis Chronic pyelonephritis /Lek/	6	2	PC-5	L1.1 L1.3 E1 E2			
5.2	Acute glomerulonephritis Chronic glomerulonephritis Chronic pyelonephritis. /Pr/	6	6	PC-5	L1.2 L1.3 L1.4			
5.3	Urinary syndrome Pathogenesis of renal hypertension	6	4	PC-5	L1.3			Reports, presentations
	Section 6. Hematology							
6.1	Iron, B12, and folate deficiency anemia /Lek/	6	2	PC-5	L1.1 L1.3 E1 E2			
6.2	Iron deficiency anemia, B12-folate deficiency anemia. CR No. 7 /Pr/	6	2	PC-5	L1.2 L1.3 L1.4			
6.3	Iron deficiency anemia, B12-folate deficiency anemia. Hemolytic and aplastic anemia . DIC syndrome. /Wed/	6	2	PC-5	L1.3			Reports, presentations
6.4	/Krek/	6	0.5					
6.5	/Exam/	6	29.5		L1.3			

5. ASSESSMENT FUND

5.1. Advancement Questions and Assignments

Questions to check level of knowledge

7th semester
Definition, etiology, pathogenesis, pathomorphology, diagnostic criteria, classification, laboratory and instrumental diagnostics, diagnostic criteria, treatment principles. Prognosis, prevention.
Community-acquired pneumonia
Bronchiectasis
Chronic obstructive bronchitis
Bronchial asthma, asthma attack
The concept of chronic pulmonary heart disease
Atherosclerosis, dyslipidemia
IHD. Angina pectoris
CHD. Acute myocardial infarction
Complications of acute myocardial infarction. Primary circulatory arrest
Hypertension, hypertension crises
Symptomatic arterial hypertension
Infectious myocarditis

Congenital heart defects
Heart failure
Acute rheumatic fever
Mitral valve defects
Aortic defects
VIII semester FACULTY THERAPY
Infective endocarditis. Rheumatoid arthritis. Systemic lupus erythematosus. Gout, osteoarthritis. Chronic gastritis. Chronic acalculous cholecystitis. Biliary dyskinesia. Chronic hepatitis. Liver cirrhosis. Gastric ulcer , duodenal ulcer. Acute glomerulonephritis. Chronic glomerulonephritis. Chronic pyelonephritis. Iron, B12, folate deficiency anemia.

List of typical tasks, interpretation of tests, decoding of ECG and patient supervision to check the level of training SKILLS and EXPERTISE: (Appendix No. 2).
Topics of independent work (abstracts)
Section 1. Pulmonology
1. Propaedeutics in respiratory diseases. 2. Functional research methods in pulmonology (spirometry, peak flowmetry). 3. The mechanism of bronchial obstruction development in COPD. 4. Principles of antibacterial therapy of community-acquired pneumonia. 5. Treatment of bronchial asthma in a mountain climate. 6. Pathophysiology of PAH. Pathogenesis of pulmonary heart disease. Euler-Liljestrand phenomenon.
Section 2. Cardiology
1. ECG interpretation protocol. 2. The role of risk factors for coronary heart disease and hypertension. 3. coronary heart disease. AMI, course variants, clinical presentation depending on the development of complications. 4. AMI as an emergency condition. 5. Indications and contraindications for stress tests in coronary heart disease. 6. Diagnostic search in hypertension. 7. Target organ damage in hypertension. 8. Pathogenesis of hypertension (Page's mosaic theory).
Section 3. Rheumatology
1. Principles of examination of patients with joint diseases. 2. Immunological mechanisms of RA and SLE development. 3. Principles of GEBP in the treatment of RA and SLE.
Section 4. Gastroenterology
1. Features of examination of patients with diseases of the digestive system. 2. The importance of gastroscopy, indications, contraindications. 3. Methods of diagnostics of HP infection. 4. Principles of eradication therapy of HP infection. 5. Laboratory and instrumental methods of diagnostics in liver diseases. 6. Markers of chronic viral infection in hepatitis and cirrhosis of the liver. 7. Modern antiviral therapy of chronic hepatitis and cirrhosis of the liver.
Section 5. Nephrology
1. Laboratory diagnostics of kidney diseases. Pathogenesis of renal hypertension.

5.2. Course Papers Themes

Not provided

5.3. Assessment Fund

Tests (Appendix No. 1)
Situational tasks (Appendix No. 2)
Recipes (Appendix No. 3)
Independent work of a student (report with an abstract, presentation)
Presentation topics:
1. Propaedeutics for respiratory diseases.
2. Functional research methods in pulmonology (spirometry, peak flowmetry).
3. The mechanism of development of bronchial obstruction in COPD.
4. Principles of antibacterial therapy for community-acquired pneumonia.
5.Treatment of bronchial asthma by mountain climate.
6.Pathophysiology of PAH. Pathogenesis of pulmonary heart disease. Euler-Liljestrand phenomenon.
7. ECG decoding protocol.
8. The role of risk factors for coronary heart disease. Coronary heart disease.
9. AMI, course options, clinical presentation depending on the development of complications.
10. AMI as an emergency condition.
11. Indications and contraindications for stress tests in coronary heart disease.
12. Diagnostic search for hypertension.
13. Target organ damage in hypertension.
14. Pathogenesis of hypertension (Page's mosaic theory).
15. Principles of examination of a patient with joint diseases.
16. Immunological mechanisms of development of RA and SLE.
17. Principles of GIBP in the treatment of RA, SLE.
18. Features of examination of patients with diseases of the digestive system.
19. The importance of gastroscopy, indications, contraindications.
20. Methods for diagnosing HP infection.
21. Principles of eradication therapy of HP infection.
22. Laboratory and instrumental diagnostic methods for liver diseases.

23. Markers of chronic viral infection in hepatitis and liver cirrhosis.
24. Modern antiviral therapy of chronic hepatitis and liver cirrhosis.
25.Laboratory diagnostics of kidney diseases.
26. Scheme of hematopoiesis.
27. The role of iron, vitamin B12, folic acid.
Interpretation of ECG and tests (Appendix No. 4)
Bedside Care Practical Skills:
1. Methodology for collecting complaints and patient history;
2. Methods of propaedeutics of various body systems: examination, palpation, percussion and auscultation of internal organs according to the module;
3. Skills in interpreting anamnesis data, objective examination of the patient, his laboratory and instrumental data;
4. Skills in expressing an independent point of view, analysis and logical thinking, public speaking, ethical argumentation, principles of medical deontology and medical ethics;
5. Skills in informing patients and their relatives;
6. Foreign language skills sufficient for communication and obtaining information from foreign sources.

Writing a case history SCHEME FOR WRITING A CASE HISTORY IN FACULTY THERAPY
TITLE PAGE – contains university details, department name, student's full name, group and year, and instructor's full name, position, rank, and degree. Example:
KRSU
Head of Department: rank, degree, full name
Teacher: rank, degree, full name
Medical history
Full name of the patient
Clinical diagnosis
Curator: Full name of the student, year, group
PASSPORT SECTION:
Last name, first name, patronymic.
Gender:_____ Age_____, Nationality_____
Home address.
Profession_____ Place of work.
Date of admission._____planned, emergency before 12 noon, emergency after 12 noon.
Preliminary diagnosis
Clinical diagnosis:
Underlying disease:
Complications of the underlying disease:_____
Concomitant diseases_____
1. Patient complaints (main, then additional)
2. History of the disease (how the disease began, how it developed, what treatment was used_____. received, what is the effect of the therapy. Recent deterioration of the condition. Reasons for hospitalization).
3. Life history. Social and living conditions. Past illnesses. Intoxication: alcohol, tobacco, food, etc. Physical injuries, previous surgeries. Mental stress, endocrine and metabolic disorders (diabetes, gout, obesity, etc.). Work activity: profession, qualifications and work experience, working conditions. Occupational hazards. Working capacity before the illness and in connection with the current illness. Sexual life, from what age. For women - the onset of menstruation, pregnancy, childbirth, abortions, miscarriages. Diseases of immediate relatives (first, second line of kinship). Diseases of others, especially contagious ones. Allergic history: intolerance to food products, medications, etc. Population "A" (no allergies), "B" (there is an allergy, indicate what and how it manifests itself).
In patients with coronary heart disease, indicate the presence of risk factors: hypertension, smoking, dyslipidemia, diabetes, physical inactivity, obesity, and a burdened heredity.
4.Status praesens objectivus (objective examination data):
General appearance of the patient:
Severity of the patient's condition: satisfactory, moderate, severe.
Height in cm, body weight in kg. Body mass index in kg/m2.
Body type (correct, incorrect, strong, weak, average)
Constitutional type: normosthenic, hypersthenic, asthenic.
Patient's position: active, forced (orthopnea), passive.
Consciousness: clear, soporous, unconscious, i.e. coma.
Facial expression: cheerful, indifferent, sad, suffering, excited.
Describe the condition of the skin, mucous membranes, subcutaneous tissue, lymph nodes, muscles, bones, joints.
Respiratory system. Cell shape. Respiration type, respiratory rate per minute. Determination of vocal fremitus. Comparative and topographic percussion of the lungs. Mobility of the lower edge of the lungs. Auscultation of the lungs: the nature of breath sounds. Wheezes, their location, quantity, character, and sonority. Pleural friction rub.
Circulatory system. The heart area is externally unchanged. The condition of the jugular veins. In the vertical and horizontal position. Pulsation. Apical impulse, cardiac impulse. Boundaries of relative cardiac dullness.
Vascular bundle width in cm. Auscultation of the heart: tones, murmurs. Examination of the arteries. Visible pulsation of the peripheral vessels, pulse. Blood pressure. Examination of the veins. Presence of varicose veins of the lower extremities.

Digestive organs. Condition of the tongue, teeth, gums, tonsils, and pharynx. Abdominal examination: inspection and palpation.
Liver palpation: degree of enlargement, consistency, tenderness, edge, and Kurlov size.
Excretory organs. Palpation of the kidneys. Tenderness to percussion along the 12th rib. Sexual function: describe the menstrual cycle, number of pregnancies, abortions, miscarriages, and births in women.
Hematopoietic system, skin and mucous membrane color, condition of the lymph nodes, liver, and spleen.
Neuropsychiatric status. Consciousness, sleep.
Endocrine system. Thyroid gland. Condition of the mammary glands.
Sense organs. Vision, hearing.
5. Preliminary diagnosis: is made on the basis of complaints, medical and life history data, and objective data.
6. Patient examination plan (logically follows from the preliminary diagnosis, which must either be confirmed or refuted).
7. Results of the examination (extracted from the patient's medical record). Interpret the data obtained through laboratory and instrumental research methods.
8. Clinical diagnosis and its rationale (use only the necessary data to establish the diagnosis).
The primary and secondary diagnoses are justified separately.
9. Etiology and pathogenesis of the disease in general.
10. Etiology and pathogenesis of the disease in this patient
11. Prescribed treatment (writing out prescriptions indicating the calculated dose, method and frequency of administration of the drug).
12. Discharge or stage summary (if the patient continues to be hospitalized) – indicates the length of hospital stay, clinical diagnosis, complaints, physical examination data, examination performed, treatment, and the effect of treatment. Recommendations.
12. Disease prognosis.

5.4. List of Assessment Tools

Tests
Situational tasks
Recipes
Report with an abstract
Presentation
Test
Interpretation of ECG and tests
Practical skills
Medical history

6. COURSE (MODULE) METHODOLOGICAL AND INFORMATIONAL SUPPORT

6.1 Recommended Reading

6.1.1 Required Reading List

	Authors, compilers	Title	Publisher, year
L1.1	Sabirov I.S.	Lecture material: Lecture material	KRSU 2021
L1.2	V.I. Podzolkova.	Internal Medicine: A Guide to Practical Training in Faculty Therapy	GEOTAR-Media 2010
L1.3	RAMS N.A. Mukhina, acad. RAMS V.S.Moiseeva, acad. RAMS A.I. Martynova.	Internal Medicine. 2nd edition + CD in two volumes	GEOTAR-Media 2011
L1.4	Makolkin V.I., Ovcharenko S.I., Sulimov V.A.	Internal Medicine. Textbook. 6th edition	GEOTAR-Media 2011
L1.5	V.G. Artamonova, N.A. Mukhin	Occupational diseases.	M.: Medicine 2006

6.1.2 Advanced Reading

	Authors, compilers	Title	Publisher, year
L2.1	T.F. Mironova, G.P. Skvirskaya, G.R. Zaripova	6 Diagnosis and treatment of occupational respiratory diseases (patient management protocols)	ChelSMA 2005

6.1.3 Guidance Papers

	Authors, compilers	Title	Publisher, year

	Authors, compilers	Title	Publisher, year
L3.1	Sabirov I.S., Bobusheva G.S., Isakova G.B., Yusupov S.A.	Etiopathogenesis, diagnosis and treatment of suppurative lung diseases: A tutorial	Bishkek: KRSU Publishing House 2008
L3.2	Sabirov I.S., Dzhaylobaeva K.A., Bobusheva G.S., Abdulkadyrova Z.A.	Pulmonology Issues: A Textbook for Extracurricular Training of Senior Students	Bishkek: KRSU Publishing House 2009
L3.3	Sabirov I.S., Mirrakhimov E.M.	Pulmonary Arterial Hypertension and Cor Pulmonale: A Study Guide: A Study Guide	Bishkek: KRSU Publishing House 2004
6.2 Online Resources			
E1	European Respiratory Society		www.ersnet.org
E2	Electronic Library of KRSU		www.lib.krsu.kg
E3	The Global Initiative for Chronic Obstructive Lung Disease		www.goldcopd.org
E4	Global Initiative for Asthma		www.ginasthma.org
E5	European Society of Cardiology		www.escardio.org
E6	American Heart Association		www.heart.org
E7	American College of Rheumatology		www.rheumatology.org
E8	The European Alliance of Associations for Rheumatology		www.eular.org
E9	American Gastroenterology Association		www.gastro.org
E10	The European Association for the Study of the Liver		www.easl.eu
E11	Kidney Disease Improving Global Outcomes		www.kdigo.org
E12	European Society of Urology		www.uroweb.org
6.3. List of Information and Education Technologies			
6.3.1 Competence-based Educational Technologies			
6.3.1.1	Traditional educational technologies—lectures and seminars—focus primarily on imparting knowledge and methods of action, conveyed to students in a ready-made format and designed for reproducible assimilation and analysis of specific examples. Lecture material is presented to students using multimedia equipment and periodic presentations of case studies. Patient rooms and classrooms are used for student work.		
6.3.1.2	Tables of models for various diseases of the respiratory, cardiovascular, digestive, urinary and endocrine systems, and the musculoskeletal system		
6.3.1.3	Multimedia system and computer		
6.3.1.4	Discs, audio recordings of cardiac auscultation, radiography of respiratory organs for various diseases.		
6.3.1.5	Offices in the Central Institute of Postgraduate Education		
6.3.1.6	Innovative educational technologies foster systemic thinking and the ability to generate ideas when solving various situational problems. These include situational problems, brainstorming, role-playing, small group work, and scientific and practical conferences.		
6.3.1.7	Information technology education – students independently use computers and internet resources to complete practical assignments and complete independent work. To better understand the material and complete independent work, students prepare essays, reports, and presentations.		
6.3.2 List of Information Reference Systems and Software			
6.3.2.1	www.med.kg Website of the Ministry of Health of the Kyrgyz Republic		
6.3.2.2	http://www.athero.ru "Website of the Atherosclerosis Center"		
6.3.2.3	www.medmir.com REVIEWS OF WORLD MEDICAL JOURNALS IN RUSSIAN		
6.3.2.4	www.escardio.org European Society of Cardiology ESC		
6.3.2.5	www.lib.krsu.kg "Electronic Library" of KRSU		
6.3.2.6	www.rmj.ru Russian Medical Journal		
6.3.2.7	Internal Medicine		
6.3.2.8	http://marc.rsmu.ru:8020/marcweb2/Default.asp Makolkin, V. I. Internal diseases		

6.3.2.9	http://marc.rsmu.ru:8020/marcweb2/Default.aspInternal diseases: tests and situations.
6.3.2.10	http://marc.rsmu.ru:8020/marcweb2/Default.asp General medical practice
6.3.2.11	http://marc.rsmu.ru:8020/marcweb2/Default.asp Rheumatology

7. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)	
7.1	Computer and multimedia equipment;
7.2	Training software discs;
7.3	Electronic library
7.4	Website addresses of Russian publishers on internal medicine.
7.5	Audio lectures by the head of the department, academician M.M. Mirrakhimov on specific topics of internal medicine.
7.6	Traditional analog educational publications: reference lecture notes, teaching aids for studying theoretical material.
7.7	The course is taught at the 30-bed Pulmonology Department of the NG Emergency Hospital.
7.8	There are 7 standard equipped classrooms (tables, chairs, hangers, boards), 85 seats. 2 lecture halls for 200 people and for 50 people.

8. COURSE (MODULE) PROFICIENCY METHODICAL GUIDELINES (FOR STUDENT)

The technological map of the discipline is in Appendix No. 7.
Methodological recommendations for studying the discipline.
For the 2024-2025 academic year, if necessary, lectures, practical classes, and CSR will be conducted online using internet platforms: - Lectures will be delivered via Zoom, Skype, and Instagram; Practical classes will be conducted via Skype, WhatsApp, and Instagram; and educational and methodological materials will be posted on the department's resources:
http://terlech.krsu.edu.kg. Distance learning content will be compiled taking into account the subject plan.
Recommendations for using the materials of the educational and methodological complex.
The specificity of the study of faculty therapy lies in the use of basic teaching and methodological techniques: student work in lectures, practical classes, when studying individual topics, the use of visual aids (posters, dummies, multimedia slides), followed by a demonstration of thematic patients, as well as analysis and supervision of thematic patients with the preparation of a medical history.
Methodological recommendations for independent extracurricular work of students in studying the discipline:
The study of the theoretical part of the course is intended not only to deepen and consolidate the knowledge acquired in the classroom , but also to promote the development of students' creative skills, initiative, and the organization of their free time.
The student's independent work in studying the discipline includes:
- reading recommended literature, internet sources and mastering the theoretical material of the discipline;
- preparation for various forms of control (survey, situational task, test, ECG, X-ray, analysis);
- writing the medical history of the supervised patient.
Students must plan the time required to study the subject throughout the semester, while providing for regular repetition of the material.
Working with educational literature is considered a type of academic work in the discipline within the hours allocated for it.
Study (in the Independent Work Study section).
Each student is provided with access to the library collections of the University and the department.
Student work in a group develops a sense of collectivism and communication skills.
Teaching students helps them develop ethical and deontological skills for communicating with therapeutic patients.
The initial level of students' knowledge is determined by a knowledge assessment, ongoing monitoring of the mastery of the discipline, as well as oral questioning during classes, during clinical analyses, and when solving typical situational problems.
SITUATIONAL PROBLEM
An example of implementation is in Appendix No. 2. Rating scales
REPORT
Preparing a report for class.
The main stages of report preparation are: choosing a topic; consulting with the instructor; preparing a report outline; working with sources and literature, collecting material; writing the report text; preparing the manuscript and submitting it to the instructor before the presentation, which determines the student's readiness to present; delivering the report, answering questions.

ABSTRACT
Recommendations for writing an abstract.
1. The topic of the paper is chosen in accordance with the student's interests and must correspond to the provided sample list. Section 5.3
2. The abstract should be based on the study of several sources additional to the main literature.

(monographs, articles).
3. The outline of the paper should be the author's own. It reflects the author's approach, opinion, and analysis of the problem.
As a rule, these are special monographs or articles.
4. All facts and borrowed ideas presented in the abstract must be accompanied by references to the source
of information.
5. Simply cobbling together an abstract from fragments of borrowed text is unacceptable. All citations must be presented in
quotation marks, with the source and page number indicated in parentheses. Failure to include quotation marks or references constitutes plagiarism and, according to
established scientific ethics, is considered a gross violation of copyright.
6. The abstract is formatted as text on standard-size sheets (A4) using Times New Roman font, 14 point. It begins with
a title page, which indicates the name of the university, the academic discipline, the topic of the abstract,
the student's last name and initials, and the year and geographic location of the university. This is followed by a table of contents indicating the page numbers of the sections.
It is advisable to divide the text of the abstract into sections: chapters, subchapters, and titles. The use of
quantitative data and illustrations (graphs, tables, diagrams, and figures) in the abstract is encouraged.
7. The abstract concludes with the "Conclusion" and "Bibliography" sections. The conclusion presents
the main findings, clearly stated in thesis form and usually numbered.
8. The bibliography must be compiled in full compliance with the current standard (rules), including
the specific placement of punctuation marks. Generally, the most commonly used order
of bibliographic references in our country is as follows:
Author I.O. Book title. Place of publication: Publisher, Year of publication. Total number of pages in the book.
Author I.O.
Article title // Journal title. Year of publication. Volume __. No. __. Pages from __ to ___.
Author I.O. Title of article / Title of collection. Place of publication: Publisher, Year of publication. Pages from __ to ___.
Approximate content of the work: Title: Volume: 13-15 pages.

PRESENTATION in Microsoft PowerPoint
A presentation provides an opportunity to clearly present innovative ideas, developments, and plans. A classroom presentation
is the result of independent student work, through which they visually demonstrate
the materials of a public presentation to an audience. A computer presentation is a file containing the necessary
materials, consisting of a sequence of slides. Each slide contains self-contained
information, as it does not automatically carry over to the next slide, unlike a text document. One of
the main presentation programs worldwide is Microsoft PowerPoint.
Presentation structure:
It is possible to hold the active attention of listeners for no more than 15 minutes, and, therefore, with an average
viewing time of 1 minute per slide, the number of slides should not exceed 15.
The first slide of the presentation should contain the topic of the paper, the last name, first name, and patronymic of the presenter, the study group number,
and the last name, first name, patronymic, position, and academic degree of the instructor. The second slide should ideally present
the purpose and summary of the presentation. Subsequent slides should be divided into sections according to the points of the
work plan. The final slide should highlight the most important content of the presentation.
Recommendations for designing presentations in Microsoft PowerPoint:
To ensure visual clarity, text on presentation slides should be at least 18 pt, and headings at least 24 pt.
The presentation layout should follow a consistent color scheme. The background should not be too bright or colorful.
Text should be easily legible. The same elements on different slides should be the same color. Slide
(screen) space should be utilized as much as possible, for example, by enlarging the image. Furthermore, whenever
possible, the top ¾ of the slide (screen) should be used, as the bottom of the screen is poorly
visible from the back rows. Each slide should contain a title. Headings should not end with a period. Headings
should convey the conclusion of the information presented on the slide. Headings in all capital
letters are permissible only if they are brief. Slide length should be no more than 5-6 lines, and
sentences should be no more than 5-7 words. Text on slides should be easily legible. When adding images, diagrams, charts, and screenshots
, check the text for errors. Avoid overloading slides with animations
, as this distracts the audience from the slide's content. Use the same
animation effect for each slide transition.

SECTION OF KNOWLEDGE
This assignment is completed in the form of a written response to a question or a situational problem, based on
the topical plan for practical classes. The content of the answers on faculty therapy should emphasize
knowledge of internal medicine propaedeutics, pharmacology, pathological and normal physiology, and pathological anatomy.
The purpose of the knowledge assessment is to determine the quality of assimilation of the material.
When preparing students for the knowledge assessment, it is necessary to use lecture materials and textbooks specified in the main list of literature of the working program of the discipline.
Students study the methodology of examining a medical patient (section 5.3), practice practical skills in
a group, and work with patients in wards under the guidance of a teacher.
For the work, it is recommended to use the methodological recommendations for the practical lesson, posters, tables, and methodological developments of the department - PATIENT EXAMINATION SCHEME.

The final stage of the work is the supervision of the patient and the preparation of the MEDICAL HISTORY (see paragraph 5.3)

TESTS (Appendix No. 1)
The proposed tests for midterm assessment are monosyllabic, with one correct answer.
ECG decoding means the answers according to the protocol:
1. The rhythm is correct, incorrect
2. Rhythm: sinus, non-sinus
3. Position of the EOS
4. Heart rate
5.Characteristics of intervals and teeth of the ventricular complex in the chest leads.
Conclusion.

Recommendations for preparing for the exam:
When preparing students for the exam, the following textbooks should be considered:
Internal diseases [Text]: [textbook for medical universities]: in 2 volumes / R. A. Abdulhakov, V. G. Avdeev, V. A. Almazov et al.; edited by N.
A. Mukhin et al. – 2nd ed., corrected and supplemented. – V. 1. - Moscow: GEOTAR-Media, 2012.
Standards of patient care. Clinical guidelines. Issue 2 / Edited by A.A. Baranov et al. - Geotar-Media, 2011.
Internal Medicine by T.R. Harrison. Edited by E. Fauci and J. Braunwald. In 10 volumes. Praktika, Moscow, 2005.
Strauss, S.E., Richardson, V.S., Glaceyo, P., Haynes, B.R. Evidence-Based Medicine. Translation from English. / Ed. by V.V. Vlasov. Geotar-Media, 2010.
Makolkin V.I., Ovcharenko S.I., Sulimov V.A. Internal Medicine. 6th edition - Geotar-Media, 2011.
Manual of Medicine. Diagnostics and Treatment. 2nd edition. Edited by Mark H. Beers. Translation from English / Edited by A.G. Chuchalin. - Litterra, 2011.
Atlas of Clinical Medicine. External Signs of Diseases / Edited by A.F. Tomilov. - Geotar-Media, 2011.
Clinical analyses in the faculty therapeutic clinic named after V.N. Vinogradov / edited by Sulimov, O.V. Blagova. - Geotar-Media, 2012.
Roytberg G.E., Strutynsky A.V. Internal Medicine. The Digestive System: A Study Guide. 2nd ed. - Medpress -inform, 2011
Gastroenterology + CD. National leadership / Ed. V.T. Ivashkina T.L. Lapina.- “Geotar-Media”, 2008
Mukhin N.A., Tareeva I.E., Shilov E.M., et al. Diagnosis and treatment of kidney diseases. Geotar-Media, 2011
Rheumatology. National Guidelines (+ CD-ROM) / Edited by E.L. Nasonov, V.A. Nasonova. - Geotar-Media, 2010

The course of faculty therapy consists of 8 modules (tests) (4 in each semester) with written answers to 5 assignments:
Theoretical questions on topics
To solve a typical situational problem—a practical control task (PCT)—the following algorithm of actions must be followed: establish a preliminary diagnosis by assessing the conditions of the problem; decide on the sufficiency of the proposed examination results; decide on the need for additional examination to resolve the problematic situation; describe the expected results, evaluate the consequences of the decisions made in formulating a clinical (final) diagnosis; and prescribe appropriate treatment.
Interpretation of the analysis and instrumental examination data, assuming: for which disease this analysis is or may be mandatory.
Decoding an ECG according to the protocol with writing a conclusion
Prescribing 2 prescriptions with doses and signature.
FINAL EXAM
tests
supervision (checking of consolidated practical skills)
individual interview with tickets

Appendix #1

Tests on Intermediate Course of Therapy

1. WHAT IS THE MOST COMMON SIDE EFFECT OF INHALED CORTICOSTEROIDS?
A) candidiasis of the mouth and throat
B) osteoporosis
C) hypercorticism
D) arterial hypertension

2. WHICH OF THE DIRECT ACTING ANTICOAGULANT IS NOT REQUIRED TO MONITORE IN BLOOD COAGULATION SYSTEM?
A) rivaroxaban
B) heparin
C) warfarin
D) bivalirudin

3. WHICH OF THE FOLLOWING CAN BE USED IN WARFARIN OVERDOSE?
A) vitamin K
B) sulodexide
C) protamine
D) calcium chloride

4. WHICH OF THE GENETICALLY MODIFIED BIOLOGICAL DRUGS IS USED IN SEVERE RHEUMATOID ARTHRITIS AND IN INEFFECTIVENESS OF METHOTREXATE?
A) infliximab
B) cyclophosphamide
C) bosentan
D) abciximab

5. THE MOST SELECTIVE INHIBITOR OF COX-2 IS:
A) celecoxib
B) nimesulide
C) meloxicam
D) piroxicam

Appendix #2

Clinical cases for the 4th- year students

CLINICAL CASE

A 45-years-old woman comes to the physician complaining of a sensation that her abdomen is full which occurs 40-50 minutes after meal, and nausea.

She suffers from chronic gastritis for about 20 years with exacerbations 1-2 times a year, and usually takes proton pump inhibitors and antacids. She did not receive eradication therapy. The current exacerbation happened within the last 2 weeks due to her diet violation, sometimes she took Almagel.

On physical examination: condition is satisfactory. Height 166 cm, weight 64 kg. The skin is clean, with an ordinary color. Breath sound is vesicular, and there is no wheezing. Heart sounds are clear, the rhythm is regular. HR - 70 beats per minute, BP - 120/70 mm Hg. The abdomen is soft, painful in epigastrium and pyloric-duodenal zone. Symptoms of cholecystitis are negative. The liver is normal. There is no dysuria. The symptom of effleurage (Pasternatskiy's) in the lumbar region is negative. Stool 1 time per day with no pathology.

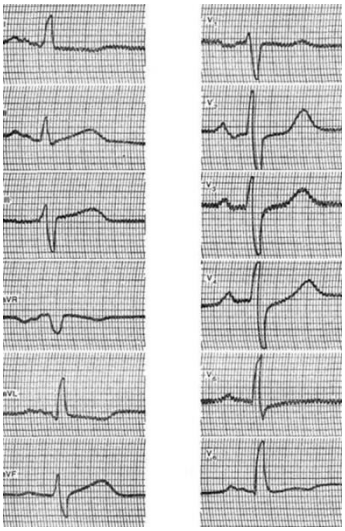
On fibrogastroscopy: the esophagus is freely passable, the mucosa is not changed. Cardia closes completely. The mucous of the stomach is hyperemic with areas of atrophy in the antrum, and the folds are smoothed out, spread well with air. Pylorus is passable. The mucous bulb of the duodenum is not changed. A biopsy specimen from the antral stomach was taken: a rapid urease test is positive. A histological examination of the biopsy specimen: gastric mucosa with atrophy and chronic polymorphic cell infiltration.

Questions:
1. What is the most likely diagnosis?
2. Substantiate your diagnosis.
3. Make a plan for an additional examination of the patient.
4. Prescribe treatment for the patient and substantiate it.
5. Develop a plan for dispensary observation of the patient.

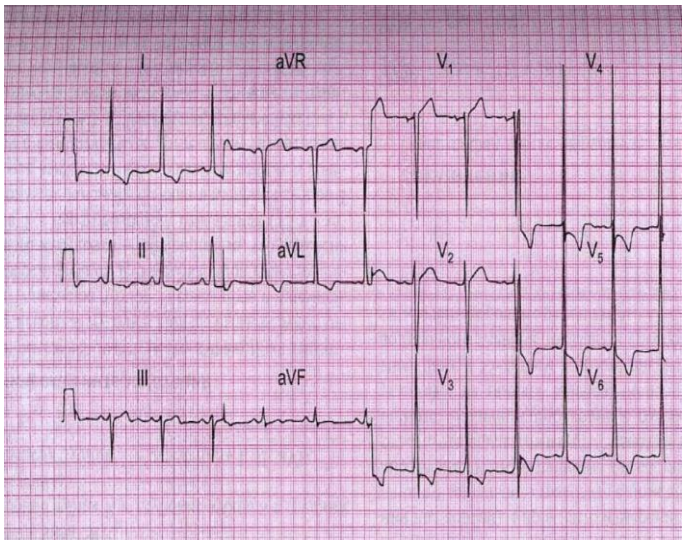
Appendix № 3. Prescriptions for the 4th- year students
2025-2026 academic year
Semester 7

Diseases	**Medicines**
PULMONOLOGY	
Pneumonia	amoxicillin, amoxicillin-clavulanate, ceftriaxone, levofloxacin
Bronchiectasis	azithromycin, cilastatin + imipenem, ACC (acetylcysteine)
COPD	ipratropium bromide, tiotropium bromide, budesonide/glycopyrrolate/formoterol, ambroxol hydrochloride
Bronchial asthma	budesonide/formoterol, montelukast, omalizumab
CARDIOLOGY	
Atherosclerosis Angina pectoris	atorvastatin, ezetimibe, evolocumab bisoprolol, acetylsalicylic acid (aspirin), amlodipine, isosorbide mononitrate, trimetazidine
AMI	alteplase, clopidogrel, morphine, ramipril, heparin, aspirin, isosorbide dinitrate (IV, tabl, aerosol), bisoprolol
Sudden cardiac arrest	epinephrine, amiodarone
Essential hypertension	indapamide, amlodipine, perindopril, losartan
AH crises	captopril, nifedipine extended-release, moxonidine
Secondary AH	fentholamine, doxazosin, spironolactone
HF Myocarditis	bisoprolol, ramipril, eplerenone, sakubitril/valsartan, torasemide, empagliflosin
RHEUMATOLOGY	
ARF, mitral and aortic valve defects	benzylpenicillin, roxithromycin, benzathinbenzyl-penicillin (extencillin), diclofenac, methylprednisolone, aspirin
Infective endocarditis	benzylpenicillin, amikacin, cephalexin, cilastatin + imipinem, ceftriaxone, vancomycin, clindamycin
RA	nimesulide, diclofenac, prednisolone, methylprednisolone, sulfasalazine, methotrexate, tocilizumab, rituximab
SLE	cyclophosphamide, azathioprine, mofetil mycophenolate, hydroxychloroquine, prednisolone, diclofenac (voltaren), indomethacin
Gout	Indomethacin, nimesulide, colchicine, methylprednisolone, allopurinol, febuxostat
Osteoarthritis	Aceclofenac (aertel), ketoprofen, acetaminophen, chondroitin sulfate, glocosamine hydrochloride, ketoprofen (fastum gel), ibuprofen (dolgit cream).
GASTRO-ENTEROLOGY	
Chronic gastritis Peptic ulcer disease	famotidine, metoclopramide, pantoprazole, clarithromycin, amoxicillin, bismuth tripotassium dicitrate, metronidazole
Biliary diskinesia, chronic cholecystitis	metoclopramide, domperidone (motilium), no-spa, platifillin, allochol, magnesium sulfate, flamin, febihol, pirensepine dihydrochloride (gastrocepin).
Chronic hepatitis	ademethionine (heptral), ursodeoxycholic acid (ursosan), peginterferon (pegasis), tenofovir, entecavir, sofosbuvir+ledipasvir, daclatasvir+ledipasvir.
Liver cirrhosis	ademethionine (heptral), azathioprine, glucose, spironolactone, propranolol, furosemide, pantoprazole, lactulose.
NEPHROLOGY	
AGN	benzylpenicillin, prednisolone, azathioprine, heparin, dipyridamole, furosemide, enalapril, losartan.
CGN	benzylpenicillin, prednisolone, methylprednisolone, heparin, dipyridamole, furosemide, calcium gluconate, candesartan, atorvastatin, cyclophosphamide, mofetil micofenolate, rituximab
Chronic pyelonephritis	Amoxicillin, ciprofloxacin, pipemidic acid (palin), canephron, ceftriaxone
HEMATOLOGY	
Iron-, folate-, B12-deficiency anemia	Ferro-tab, gino-tardiferon, ferrum-lek, cyanocobalamin (vitamin B12), folic acid

ECG and analysis



Left atrial hypertrophy



Left ventricular hypertrophy with violation of repolarization

Laboratory tests

BLOOD TEST - IRON-DEFICIENCY ANEMIA

RBC-2,8x10^{12}/L,
Hb-65 g/L,
MCV -0.69
WBC -4,3x10^{9}/L,
Neu - 5%,
Segmented Neu - 68%,
Lymphocytes - 22%,
Monocytes - 4%,
Eosinophils -1%.
PLT - 212,0x10^{9}/L,
Reticulocytes-7%
ESR-10 mm / h
Serum iron -7.6 μmol/L

ASSESSMENT SCALE OF QUIZ (ORAL INTERVIEW) (Formative assessment)
Level assessment TO KNOW:
85-100% (2 points) - the student is fully prepared for the interview, and demonstrates an understanding of the definition of common diseases of internal organs, etiology, development mechanism, patterns of clinical manifestations of therapeutic diseases, laboratory diagnostic features, and diagnosis formulation.
70-84% (1 point) - the student is not fully prepared for the interview, demonstrates a lack of understanding of the definition of common diseases of internal organs, etiology, development mechanism, patterns of clinical manifestations of therapeutic illnesses, laboratory-diagnostic signs, diagnosis formulation, and the main principles of treatment of therapeutic patients.
60-69% (0,5 points) - the student partially responds to the interview, and demonstrates insufficient knowledge in the definition of common diseases of internal organs, etiology, development mechanism, patterns of clinical manifestations of therapeutic diseases, laboratory-diagnostic signs, diagnosis, and basic principles treatment of therapeutic patients.
0-59% (0 points) - the student does not respond in the interview at all, or demonstrates an absolutely incorrect understanding of the definitions of common diseases of internal organs, etiology, development mechanisms, patterns of clinical manifestations of therapeutic diseases, laboratory-diagnostic signs, diagnosis, and basic principles treatment of therapeutic patients.

ASSESSMENT SCALE OF PRESCRIPTIONS (Formative assessment)
1. There are 2 attached prescriptions for writing.
2. Prescriptions are given credit when they are correctly written, with indication of doses, and with signatures.
3. For each correctly prescribed prescription with indication of doses and signatures – **0.5 points.**
4. If the prescription is incorrectly written - **0 points.**

ASSESSMENT SCALE OF PRACTICAL SKILLS (Formative assessment)
Assessment of Expertise Level:
1. Practical skills are assessed when performing supervision at the patient's bedside.
2. The skills of collecting complaints, anamnesis, objective examination of the patient (including palpation, percussion, auscultation), pre-diagnosis, examination and treatment plan are taken into account.
Level of assessment of practical skills:
85-100% (2 points) - the student fully demonstrates practical skills, avoiding mistakes, comprehensively interprets the results obtained, and observes ethical-deontological principles and individual approach to the patient.
70-84% (1 point) - the student demonstrates most practical skills, but there are minor mistakes. The student is able to interpret the received data with little difficulty, and observes ethical-deontological principles and an individual approach to the patient.
60-69% (0 points) - the student demonstrates partial competence in practical skills. The task is not more than half done, and many mistakes are made. The student is not able to interpret the results, but observes the ethical-deontological principles.
0-59% (0 points) - the student either does not perform practical skills at all, or performs it completely wrong. The student does not observe an individual approach to the patient.

ASSESSMENT SCALE OF CLINICAL CASES (Formative assessment)
1. One clinical case is attached.
2. The problem is enclosed with questions.
3. For the correct and completed formulation of the diagnosis (according to modern classifications) - 20%.
4. For the completed examination plan and a complete list of expected results of the examination - 40%.
5. For the completed treatment plan including medication (indicating the dosage of drugs) and non-pharmacological treatment methods - 40%.
6. The total score is defined as the sum of the collected percentages.
7. The collected amount of percentages is transferred to points (valuation).

Evaluation grades	**Evaluation criteria and %**	**Evaluation criteria and %**	**Evaluation criteria and %**
Formulation of the preliminary diagnosis	Complete (according to modern classifications) - 20%	Incomplete - 10%	Invalid diagnosis - 0%
Examination plan	The complete list of expected results of the examination is 40%	Incomplete list - 20%	Absent - 0%
Treatment plan	A complete treatment plan including medication (indicating doses of drugs) and non-pharmacological treatment - 40%	Incomplete treatment plan - 20%	Absent - 0%

When assessing the clinical cases:
85-100% (2 points) - the rating is "Excellent"
70-84% (1 point) - the rating is "Good",
60-69% (0.5 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory"

ASSESSMENT SCALE OF THE REPORT

Assessment grades	Score (%)
Speech literacy during the abstract defense	0-5
Knowledge of information	0-20
Compliance with the time-limit of the report	0-5
Availability of information delivered	0-10
Correspondence between the content of the report and the abstract to the given topic	0-40
Presence of the introduction, main part and conclusion	0-10
Presence of conclusions corresponding to the topic and content of the main part	0-10

When assessing report with the abstract:
85-100% (0.5 points) - the rating is "Excellent"
70-84% (0.4 points) - the rating is "Good",
60-69% (0.3 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory".

ASSESSMENT SCALE OF PRESENTATION

Assessment grades	Score (%)
Speech literacy	0-5
Knowledge of information	0-20
Compliance with the presentation time limit	0-5
Availability of information delivered	0-10
Correspondence between the content of the presentation and the given topic	0-40
Presence of slides using pictures, tables, etc.	0-10
Presence of the introduction, main part and conclusion	0-10

When assessing presentation:
85-100% (0.5 points) - the rating is "Excellent"
70-84% (0.4 points) - the rating is "Good",
60-69% (0.3 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory".

ASSESSMENT SCALE OF CONTROL WORKS (MODULES) (Midterm examination)
1. Two (2) theoretical questions, one (1) clinical case, one (1) ECG and two (2) prescriptions are attached.
Assessment of theoretical questions:
theoretical question #1 - **0-4 points.**
theoretical question #2 - **0-4 points**
1 clinical case - **0-3 points**
1 ECG - **0-2 points**
1 recipe - **0-0.5 points**
1 analysis - **0-0.5 points.**
In addition to the CW, one case history of the patient being supervised should be submitted - **2 points.**
The minimum number of points for the CW is 7 points.
The maximum number of points for the CD submission is 12 (13) points.

ASSESSMENT SCALE OF THEORETICAL QUESTIONS (Midterm examination)
85-100% (4 points) - complete, consistent, literate and logical answers; demonstration of the student's knowledge from the completed program, and information from additional literature; and reproduction of the educational material with the required degree of accuracy.
75-84% (3 points) - the presence of minor errors, confidently corrected by the student after additional and leading questions; demonstration by the student of knowledge derived from the completed program, and clear presentation of the training material.
60-74% (2 points) - the presence of minor errors in the response, not corrected by the student; demonstration by the student of insufficient knowledge of the completed program; and unstructured presentation of the training material.
less than 60% (0 points) - ignorance of the section materials; major errors occur when answering.

ASSESSMENT SCALE OF CLINICAL CASES (Midterm examination)
1. One clinical case is attached.
2. The problem is enclosed with questions.
3. For the correct and completed formulation of the diagnosis (according to modern classifications) - **20% (0.5 points).**
4. For the completed examination plan and a complete list of expected results of the examination - 40%.
5. For the completed treatment plan including medication (indicating the dosage of drugs) and non-pharmacological treatment methods - **40% (1 point)**.
6. The total score is defined as the sum of the collected percentages.

7. The collected amount of percentages is transferred to points (valuation).

Evaluation grades	**Evaluation criteria and %**	**Evaluation criteria and %**	**Evaluation criteria and %**
Formulation of the preliminary diagnosis	Complete (according to modern classifications) - 20%	Incomplete - 10%	Invalid diagnosis - 0%
Examination plan	The complete list of expected results of the examination is 40%	Incomplete list - 20%	Absent - 0%
Treatment plan	A complete treatment plan including medication (indicating doses of drugs) and non-pharmacological treatment - 40%	Incomplete treatment plan - 20%	Absent - 0%

When assessing the clinical cases:
85-100% (3 points) - the rating is "Excellent"
70-84% (2 point) - the rating is "Good",
60-69% (1 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory"

ASSESSMENT SCALE OF ECG (Midterm examination)
1. The presence of complete ECG reading according to protocols is evaluated.

Grades of ECG assessment	**Assessment criteria and %**
Rhythm sinus or non-sinus	Specified - 10% Invalid 0%
Rhythm is regular or irregular	Specified - 10% Invalid 0%
Heart rate per minute	Specified - 10% Invalid 0%
Electrical axis of the heart	Specified - 10% Invalid 0%
Conclusion: LAH / RAH /LVH / RVH	Specified - 60% Wrong - 0%
Conclusion: LAH + LVH Either LAH, or LVH is indicated	Specified - 60% Incomplete response - 30% All is wrong - 0%
Conclusion: RAH +RVH Either the RAH or the RVH is indicated	Specified - 60% Incomplete response - 30% All is wrong - 0%
Conclusion: MI, localization, stage. IM, not all the walls are indicated, but the stage is indicated IM, all walls are indicated, but the stage is not indicated Completely wrong conclusion.	Specified - 60% Incomplete response - 30% Incomplete response - 30% All is wrong - 0%

When assessing ECG:
85-100% (2 points) - the rating is "Excellent"
70-84% (1 point) - the rating is "Good",
60-69% (0.5 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory".

ASSESSMENT SCALE OF RECIPES (Midterm examination)
1. There are 2 attached prescriptions for writing.
2. Prescriptions are taken into account when they are correctly written with the indication of doses and signatures.
3. For each correctly prescribed prescription with indication of doses and signatures – **0.5 points.**
4. For incorrectly written prescription - **0 points.**

When writing prescriptions:
85-100% (0.5 points) - the rating is "Excellent"
70-84% (0.4 point) - the rating is "Good",
60-69% (0.3 points) - the rating is "Satisfactory"
0-59% (0 points) - the rating is "Unsatisfactory".

ASSESSMENT SCALE OF LABORATORY TESTS (Midterm examination)

It is estimated that there is a complete interpretation of laboratory tests.

When interpreting labtests:
85-100% (0.5 points) - the score is "Excellent" – when full interpretation of the tests is indicated: what changes are noted, and in what diseases or conditions occur.
70-84% (0.4 points) - evaluation is "Good" - when the interpretation of the analyzes is not indicated in full. For example, all the diseases (conditions) under which these changes occur are not indicated.
60-69% (0.3 points) - "Satisfactory" score - when unfocused or distorted interpretation of the tests is indicated, for example, for what changes are noted, or for what diseases or conditions occur.
0-59% (0 points) - "Unsatisfactory" - the analysis is incorrectly interpreted.

SCALE OF ASSESSMENT OF THE HISTORY CASE
1. The history case is assessed according to the patient being supervised.
2. The history case should be written according to the presented scheme of the medical history.
3. The presence of passport data, the ability to collect complaints, anamnesis, an objective examination of the patient (including palpation, percussion, auscultation), taking into account the preliminary diagnosis, as well as the survey plan, the results of the examination with their interpretation, the clinical diagnosis and its rationale, the etiology and pathogenesis of the disease , as well as the indication of non-pharmacological and medical methods of treatment, a diary, discharge epicrisis.

Level of assessment of practical skills:

85-100% (2 points) - the medical history is written completely according to the presented scheme.
70-84% (1 point) - the history is written according to the presented scheme is approximate, but there are inaccuracies which the student fully understands. There may be minor inaccuracies that can be introduced.
60-69% (0,5 points) - the history is written according to the presented scheme, but there are significant mistakes - for example: the formulated clinical diagnosis is not justified, examination plan does not include all possible methods of examination, or a general scheme of treatment of the disease is assigned, but not individually to the patient.
0-59% (0 points) - the history is evaluated, and written not according to the presented scheme, and there is no substantiation of the clinical diagnosis. The examination plan does not include all possible methods. Treatment scheme does not correspond to the disease.

The planning sheet for discipline
2025-26 academic year

Discipline **Intermediate Course of Therapy**
Field of study/specialization **General Medicine**
Course/semester **5**
Credit units (CU) **3**

Title of module according to WPD	Type of control	Forms of control	Minimal credit points	Maximal credit points	Week of control
Module 1					
Module 1. Pulmonology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	5	8	5
	Midterm examination	Control work №1 (2 theoretical questions, 1 clinical case, 1 analysis, 2 prescriptions)	8	15	
Module 2					
Module 2. Cardiology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	5	8	8
	Midterm examination	Control work №2 (2 theoretical questions, 1 clinical case, 1 ECG, 2 prescriptions)	8	15	
Module 3					
Module 3. Cardiology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	5	8	16
	Midterm examination	Control work №3 (2 theoretical questions, 1 clinical case, 1 ECG, 2 prescriptions)	9	16	
Total			40	70	
Midpoint assessment (tests)			20	30	16
Summative assessment			60	100	

Note:
1. 0.5 points are withdrawn for every missed lecture and/or practical session.
2. 0,5 points are added for active participation in the practical session.

The planning sheet of discipline

Discipline **Intermediate Course of Therapy**
Field of study/specialization **General Medicine**
Course/semester **6**
Credit units (CU) **4**

Title of module according to WPD	Type of control	Forms of control	Minimal credit points	Maximal credit points	Week of control
Module 4					
Module 4. Rheumatology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	3	5	37
	Midterm examination	Control work №4 (2 theoretical questions, 1 clinical case, 1 ECG, 2 recipes)	7	12	
Module 5					
Module 5. Rheumatology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	3	5	41
	Midterm examination	Control work №5 (2 theoretical questions, 1 clinical case, 1 ECG, 2 recipes)	7	12	
Module 6					
Module 6. Gastroenterology	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	3	5	45
	Midterm examination	Control work №6 (2 theoretical questions, 1 clinical case, 1 ECG, 2 recipes)	7	13	
Module 7					
Module 7. Nephrology. Hematology.	Formative assessment	Activity, attendance, prescriptions, patient's case history /clinical case solving, SIW	3	5	50
	Midterm examination	Control work №7 (2 theoretical questions, 1 clinical case, 1 ECG, 2 recipes)	7	13	
Total			40	70	
Midpoint assessment (exam – interview on questions: 2 theoretical questions, situational case, ECG)			20	30	51
Summative assessment			60	100	

Note:
1. 0.5 points are withdrawn for every missed lecture and/or practical session.
2. 0,5 points are added for active participation in the practical session.