ОРИГИНАЛ

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»	
Department of Therapy and Cardiology		044-51/11
Syllabus "Fundamentals of Internal Medicine - 2"		1page of 20

Department of Therapy and Cardiology
Work program of the discipline (Syllabus)
Educational program: 6B10101 "General Medicine"

SYLLABUS

1.	General information about the discipline		
1.1	Discipline Code: OVB 4301-2	1.6	Academic year: 2022-2023
1.2	Name of discipline: Fundamentals of Internal Medicine-2	1.7	Course: 4
1.3	Prerequisites: propaedeutics of internal diseases, pathology, pathophysiology, clinical pharmacology	1.8	Semester: 8
1.4	Postrequisites: Fundamentals of Internal Medicine - 2	1.9	Number of credits (ECTS): 5
1.5	Cycle: DB (basic discipline)	1.10	Component: HF (optional component)

2.	Description of the discipline (maximum 150 words)
The subject "Internal Diseases" is a field of clinical medicine that studies etiopathogenesis, symptoms, syndromes, diagnostic methods, medical care in emergency conditions, pharmacodynamics of drugs, prognosis and prevention of common diseases of internal organs based on scientific principles within the framework of the legislation of the Republic of Kazakhstan. The program has integration with the following subjects: anatomy, physiology, pathological anatomy, pathological physiology, pharmacology.	

3.	Summative assessment form *		
3.1	Testing	3.5	Solution of situational problems
3.2	Writing✓	3.6	Writing a case history
3.3	Oral	3.7	Other (specify)
3.4	OSPE/OSKE or practical skills intake✓		

4.	Aims of the discipline
to form the student's skills of clinical thinking, based on knowledge of the pathophysiological mechanisms of the course and outcome of diseases, physical and clinical - laboratory methods of examination and choice of drugs in adult patients with the main clinical syndromes of internal diseases.	

5.	Learning outcomes (RO disciplines)
PO1	Provides patient-centered care in the biomedical, clinical, epidemiological and social-behavioral sciences for the most common diseases.
PO2	Carries out its activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, is guided by them in its practical activities to ensure optimal medical care.
PO3	Complies with the rules of ethics, deontology and subordination, demonstrates interpersonal and communication skills, leading to effective exchange of information and cooperation with patients, their families and medical professionals.
PO4	Carries out effective measures aimed at diagnosing, treating, and preventing common and early forms of diseases.
RO5	Performs professional duties, organizes self-control and continuous improvement of its activities.
RO6	Supports continuous personal and professional growth, constantly improves the quality of medical care based on self-assessment and lifelong learning.
RO 7	Applies scientific principles, methods and knowledge to medical practice and research. Able to continuous self-education and development. Introduces new methods into clinical practice.

RO 8	Complies with the standards for the implementation of public health protection, the sanitary and hygienic regime of the healthcare organization and the epidemiological safety of the environment, labor safety standards in the healthcare organization	
RO 9	Carries out diagnostics, provides qualified and emergency medical care for urgent and life-threatening conditions	
RO 10	Works in the electronic databases of the healthcare system of the Republic of Kazakhstan, provides documentation of the processes of providing medical services	
RO 11	Organizes medical and social assistance, conducts preventive and recreational activities among the population.	
5.1	RO disciplines	The learning outcomes of the EP with which the RO disciplines are associated
	PO1	Provides patient-centered care in the biomedical, clinical, epidemiological and social-behavioral sciences for the most common diseases.
	PO2	Carries out its activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, is guided by them in its practical activities to ensure optimal medical care.
	RO 4	Carries out effective measures aimed at diagnosing, treating, and preventing common and early forms of diseases.
	RO 7	Applies scientific principles, methods and knowledge to medical practice and research. Able to continuous self-education and development. Introduces new methods into clinical practice.
	RO 9	Carries out diagnostics, provides qualified and emergency medical care for urgent and life-threatening conditions
	RO 11	Organizes medical and social assistance, conducts preventive and recreational activities among the population.

6.	**Detailed information about the discipline**					
6.1	Venue (building, auditorium):Shymkent, SKMA sq. AL-FARABI 1, tel.: 40-82-26, 40-82-22 (1800), www.ukma.kz, www.ukma.kz/ru, therapy_med@mail.ru **Clinical bases:** – Regional Clinic Hospital – City hospital №2 – Clinic "Esculapius"					
6.2	Number of hours	Lectures	Prakt. zan.	Lab. zan.	SRSP	SRS
	Fundamentals of Internal Medicine - 2	15	35	-	thirty	70

7.	**Information about teachers**				
No.	FULL NAME	Degrees and position	Email address	Scientific interests, etc.	Achievements
	Asanova Galia Kutymbetovna	Candidate of Medical Sciences, Associate Professor	agk_26@mail.ru	Scientific interests: "The state of the cardiovascular system in workers in the cotton processing	Author of more than 70 scientific articles, 2 teaching aids.

		Head of Department		industry"; "Interventional treatment of myocardial infarction" "Echocardiographic method for assessing the state of the heart in patients undergoing CABG with concomitant CKD"	
	Turtaeva Aigul Elubaevna	acting professor, candidate of medical sciences	Curtcha@mail.ru	The method of rehabilitation of cancer patients,method of obtaining ointment "Artrogus" for the treatment of articular syndrome	The highest qualification category in the specialties: "adult rheumatology", "therapy", "adult cardiology". Candidate of Medical Sciences, Associate Professor.
	Abseitova Saule Raimbekovna	Professor, Chairman of the Board of the Republican Public Organization "Kazakhstan Cardiology Society"	saule_1947@mail.ru	Member of the Presidium of the Association of Cardiologists of the Republic of Kazakhstan.Winner of the highest award of the Republican Public Association "National Medical Association" - the badge "Altyn Dariger".	Author of more than 200 published works, including four educational, three methodological manuals, seven methodological recommendations, three copyright patents, one monograph
	Kushekbaeva Asiya Ergeshovna	assistant professor	dr_asia@mail.ru	Associate Professor of the Department of Therapeutic Disciplines, Candidate of Medical Sciences.	Author of more than 120 scientific papers, manuals, articles.
	Bekzhigitov Spandiyar Baizhigitovich	Professor	bekzhigitov63@mail.ru	Doctor of Medical Sciences, health care manager, cardiologist of the highest category. Winner of the highest award of the Republican Public	Author of more than 150 scientific papers, including invention patents, guidelines for practitioners and methodological recommendations.

				Association "National Medical Association" - the badge "Altyn Dariger".	
	Baymirzaeva Kamila Sabitovna	Assistant	kam_b89@mail.ru	Scientific interests: "Cause of mortality from CKD"	GP Specialist Certificate
	Tastanbek Nurila Dosbolkyzy	Assistant	tnd@mail.ru	-	Therapist Specialist Certificate
	Alieva Shyryn Baitemirovna	Assistant	aliyeva1818@mail.ru	Scientific interests: "Characteristics of outpatients with liver diseases (chronic viral hepatitis, hepatic steatosis, liver diseases caused by diabetes mellitus and obesity) receiving Essentiale® forte N as an addition to standard therapy in real practice"	Doctor-Gastroenterologist of the highest category, hepatologist
	Arsykulova Asel Talaibekkyzy	Assistant	medina.kaldan@bk.ru	-	GP Specialist Certificate

8.	**Thematic planin the discipline "Fundamentals of Internal Diseases-2" (VIII) semester**					
№	**Topic name**	**Summary**	**RO disciplines**	**Number of hours**	**Forms/ methods/ learning technologies**	**Forms/ assessment methods**
	Lecture Gastroesophageal reflux disease (GERD)	Gastroesophageal reflux disease (GERD). Definition, etiology. Pathophysiological mechanisms of GERD development. Clinic, diagnostic criteria. Pharmacodynamics of antisecretory drugs: (H2-histamine receptor blockers, proton pump inhibitors), prokinetic, antacid drugs. Dispensary supervision.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Gastroesophage-reflux disease	Gastroesophageal reflux disease (GERD). Definition, etiology. Pathophysiological mechanisms of GERD development. Clinic, diagnostic criteria. Pharmacodynamics of antisecretory: H2-histamine receptor blockers, proton pump	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems,	Check list

		inhibitors); prokinetic, antacid drugs. Dispensary supervision.			mastering practical skills, cyber patient, Trello board	
	SRSP. Theme and task of SRO Tumors of the esophagus	Tumors of the esophagus. Definition. Modern ideas about etiology. Pathophysiological mechanisms of development of tumors of the esophagus. Clinical classification. Clinical manifestations. differential diagnosis. Pharmacodynamics of chemotherapy (neoadjuvant, adjuvant, therapeutic).	RO 1,2,4, 7,9,11	2/6	Presentation Analysis wedge. cases, articles from leading scientific journals.	Evaluation of the quality of design, oral survey.
	Lecture Peptic ulcer of the stomach and duodenum.	Peptic ulcer of the stomach and duodenum. Definition, etiopathogenesis. Pathological classification. Pathophysiological mechanisms of development of PU and duodenum. Clinic, diagnostic criteria. Pharmacodynamics of antisecretory drugs: H2-histamine receptor blockers, proton pump inhibitors; prokinetic; antacids; antibacterial drugs. Recommended schemes of eradication. Medical examination and prevention.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Peptic ulcer of the stomach and twelve duodenal ulcer	Peptic ulcer of the stomach and duodenum. Definition, etiopathogenesis. Pathological classification. Pathophysiological mechanisms of development of PU and duodenum. Clinic, diagnostic criteria. Pharmacodynamics of antisecretory: H2-histamine receptor blockers, proton pump inhibitors; prokinetic; antacids; antibacterial drugs. Recommended schemes of eradication. Medical examination and prevention.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills. cyber patient, Trello board	Check list
	SRSP. Theme and task of SRO Chronic gastritis **Project:** To study modern ideas about the etiology of the development	Chronic gastritis. Definition, etiology. Pathophysiological mechanisms of development of chronic gastritis. Clinical diagnostic criteria. Differential diagnosis. Principles of therapy. Pharmacodynamics of antisecretory: H2-histamine receptor blockers, proton pump inhibitors; antacids; antibacterial drugs. Recommended schemes of eradication. **Project:** To study modern ideas about the etiology of the development of gastric ulcer and duodenal ulcer through an analysis of the results of recent studies from the Scopus database.	RO 1,2,4, 7,9,11	2/5	Analysis of scientific articles, drawing up and solving situational problems / project work cases, articles from leading scientific journals.	Evaluation of the quality of design, oral survey.

	of gastric ulcer and duodenal ulcer through an analysis of the results of recent studies from the Scopus database.					
	Lecture Chronic hepatitis	chronic hepatitis. Definition, etiology. Pathophysiological mechanisms of development of chronic hepatitis. Classification. Diagnostic criteria, exacerbation criteria. Serological studies. Differential diagnosis of chronic hepatitis. General recommendations for HTP. Pharmacodynamics of antiviral interferon alpha, nucleoside analogs, lamivudine; hepatoprotective drugs: ursodeoxycholic acid, ademetionine, essential phospholipids. Medical examination, prevention.	RO 1,2,4, 7,9,11	2	Overview lecture	Feedback (question-answer)
	Practical lesson Chronic hepatitis	chronic hepatitis. Definition, etiology. Pathophysiological mechanisms of development of chronic hepatitis. Classification. Diagnostic criteria, exacerbation criteria. Serological studies. Differential diagnosis of chronic hepatitis. General recommendations for HTP. Pharmacodynamics of antivirals: alpha-interferon, nucleoside analogues, lamivudine; hepatoprotective drugs: ursodeoxycholic acid, ademetionine, essential phospholipids. Medical examination, prevention.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	Check list
	SRSP. Theme and task of SRO Chronic pancreatitis	Chronic pancreatitis. Definition and pathomorphological classification. Pathophysiological mechanisms of development of chronic pancreatitis. Clinical diagnostic criteria. Differential diagnosis. Pharmacodynamics of antisecretory: H2-histamine receptor blockers, proton pump inhibitors; enzymatic; antispasmodic drugs. Dispensary observation and methods of prevention.	RO 1,2,4, 7,9,11	2/5	Presentation Analysis wedge. cases, articles from leading scientific journals, cyber patient, Trello board	Evaluation of the quality of design, oral survey.
	Lecture Cirrhosis of the liver	Cirrhosis of the liver. Etiopathogenesis, risk factors. Classification. Pathological classification. Pathophysiological mechanisms of cirrhosis development. Clinical, laboratory and instrumental diagnostics of cirrhosis complications**. Etiotropic and basic pathogenetic therapy of cirrhosis.**	RO 1	1	Overview lecture	Feedback (question-answer)

		Pharmacodynamics of antiviral drugs: tenofovir, entecavir, ledipasvir; immunosuppressive: azathioprine, drugs. Dspanserization, prevention, sanatorium-and-spa treatment.				
	Practical lesson Cirrhosis of the liver	Cirrhosis of the liver. cirrhosis of viral and non-viral etiology. Etiopathogenesis, risk factors. Classification. Pathological classification. Pathophysiological mechanisms of cirrhosis development. Clinical, laboratory and instrumental diagnostics of cirrhosis complications. Etiotropic and basic pathogenetic therapy of cirrhosis. Pharmacodynamics of antiviral tenofovir, entecavir, ledipasvir; immunosuppressive: azathioprine drugs. Dspanserization, prevention, sanatorium-and-spa treatment.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	oral questioning
	SRSP. Theme and task of SRO Cholelithiasis	Cholelithiasis. Etiology. Pathophysiological mechanisms of development of cholelithiasis. Classification. Clinical manifestations. differential diagnosis. Pharmacodynamics of hepatoprotective: ursodeoxycholic acid; prokinetic: domperidone, itopride, trimebutine; antispasmodic: gimecromon, alverin, drugs, NSAIDs ketorolac, ketoprofen. Medical examination and prevention.	RO 1,2,4, 7,9,11	2/5	Presentation Analysis wedge. cases, articles from leading scientific journals	Evaluation of the quality of design, oral survey.
	Lecture Chronic rheumatic heart disease. Mitral, aortic heart disease.	Chronic rheumatic heart disease. Mitral, aortic heart disease.Definition, etiology. Pathophysiological mechanisms of development of CRHD. List of main diagnostic criteria. Pharmacodynamics of antibacterial: benzylpenicillin, amoxicillin, cefuroxime, azithromycin; anti-inflammatory, glucocorticosteroid drugs: prednisolone, methylprednisolone; NSAIDs (diclofenac, meloxicam).	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Chronic rheumatic heart disease. Mitral, aortic heart disease.	Chronic rheumatic heart disease. Mitral, aortic heart disease.Definition, etiology. Pathophysiological mechanisms of development of CRHD. List of main diagnostic criteria. Pharmacodynamics of antibacterial: benzylpenicillin, amoxicillin, cefuroxime, azithromycin; anti-inflammatory, glucocorticosteroid drugs: prednisolone, methylprednisolone; NSAIDs (diclofenac, meloxicam).	RO 1,2,4, 7,9,11	2	Discussion of the topic of the lesson, solving situational problems, mastering practical skills	oral questioning
	SRSP. Theme and task of SRO Nonspecific aortoarteritis	Definition. Etiology. Pathophysiological mechanisms of development of nonspecific aortoarteritis. Pharmacodynamics of cytostatic: methotrexate, cyclophosphamide, azathioprine; glucocorticosteroids:	RO 1,2,4, 7,9,11	2/5	Presentation Analysis wedge. cases, articles from leading	Evaluation of the quality of design, oral survey

		prednisolone, methylprednisolone preparations; antiplatelet agents acetylsalicylic acid, dipyridamole. Prevention.			scientific journals. Testing, oral questioning	
	Lecture Rheumatoid arthritis	Rheumatoid arthritis. Definition, modern ideas about etiology. Pathophysiological mechanisms of development of rheumatoid arthritis. Pathological classification, clinic of articular and extra-articular manifestations. Diagnosis, Pharmacodynamics of cytostatic: methotrexate, cyclophosphamide, azathioprine, glucocorticosteroid: prednisolone, methylprednisolone drugs, NSAIDs: diclofenac, meloxicam, genetically engineered biological drugs. Prevention.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Rheumatoid arthritis	Rheumatoid arthritis. Definition, modern ideas about etiology. Pathophysiological mechanisms of development of rheumatoid arthritis. Pathological classification, clinic of articular and extra-articular manifestations. Diagnosis, Pharmacodynamics of cytostatic: methotrexate, cyclophosphamide, azathioprine, glucocorticosteroid: prednisolone, methylprednisolone drugs, NSAIDs: diclofenac, meloxicam, genetically engineered biological drugs. Prevention.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	Check list
	SRSP. Theme and task of SRO Acute rheumatic fever	Acute rheumatic fever Definition. Etiology. Clinical diagnostic criteria. Differential diagnosis. Pathophysiological mechanisms of development of acute rheumatic fever. Pharmacodynamics of antibacterial, glucocorticosteroid drugs, NSAIDs. symptomatic treatment. Prevention.	RO 1,2,4, 7,9,11	2/5	Presentation Analysis wedge. cases, articles from leading scientific journals	Evaluation of the quality of design, oral survey
	Lecture Systemic lupus erythematosus	Systemic lupus erythematosus. Definition, etiology. Pathological classification. Pathophysiological mechanisms of development of systemic lupus erythematosus. Algorithm for diagnosing SLE. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroids: prednisolone, methylprednisolone; antimalarial: hydroxychloroquine; Gbiological engineering:Belimumab, Rituximab drugs.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)

	Practical lesson Systemic lupus erythematosus	Systemic lupus erythematosus. Definition, etiology. Pathological classification. Pathophysiological mechanisms of development of systemic lupus erythematosus. Algorithm for diagnosing SLE. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroids: prednisolone, methylprednisolone; antimalarial: hydroxychloroquine; Gbiological engineering:Belimumab, Rituximab drugs.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	oral questioning
	SRSP. Theme and task of SRO Systemic vasculitis **Project Pre-Check**	Systemic vasculitis. Definition. Types of vasculitis. Etiology. Pathophysiological mechanisms of development of systemic vasculitis. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroid drugs: prednisolone, methylprednisolone. Gbiological engineering:rituximab;angioprotective (dipyridamole)drugs; anticoagulants: clexane, fraxiparine.	RO 1,2,4, 7,9,11	2/6	Analysis of scientific articles, drafting and solving situational problems / project work	Evaluation analysis of scientific articles; solution of a situational problem; evaluation of the interim report on the implementation of the project Criteria assessment; project monitoring Checklist for evaluating a scientific article and a project.
	Lecture Systemic scleroderma	Systemic scleroderma. Definition, etiology, pathogenesis. Pathological changes in connective tissue in systemic scleroderma. Pathophysiological mechanisms of development of systemic scleroderma. Classification, Diagnostics. Pharmacodynamics of basic anti-inflammatory drugs: cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroids: prednisolone,	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)

		methylprednisolone; calcium channel antagonists: amlodipine, diltiazem hydrochloride, prostaglandin analogues: iloprost, alprostadil; phosphodiesterase-5 enzyme inhibitors: sildenafil; angioprotective: dipyridamole, antifibrotic penicillamine drugs; non-selective endothelin-1 receptor antagonists: bosentan.				
	Practical lesson Systemic scleroderma	Systemic scleroderma. Definition, etiology, pathogenesis. Pathological changes in connective tissue in systemic scleroderma. Pathophysiological mechanisms of development of systemic scleroderma. Classification, Diagnostics. Pharmacodynamics of basic anti-inflammatory drugs: cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroids: prednisolone, methylprednisolone; calcium channel antagonists: amlodipine, diltiazem hydrochloride, prostaglandin analogues: iloprost, alprostadil; phosphodiesterase-5 enzyme inhibitors: sildenafil; angioprotective: dipyridamole, antifibrotic penicillamine drugs; non-selective endothelin-1 receptor antagonists: bosentan.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	oral questioning
	SRSP. Theme and task of SRO Gout Frontier control No. 1	Gout. Definition. Etiology. Pathophysiological mechanisms of gout development. Classification according to clinical manifestations of the disease and further progression. Clinical diagnostic criteria. Pharmacodynamics of antihyperuricemic: allopurinol, colchicine; glucocorticosteroids: prednisolone, methylprednisolone, drugs.	RO 1,2,4, 7,9,11	2/6	Presentation Analysis wedge. cases, articles from leading scientific journals. Testing, oral questioning	Evaluation of the quality of design, oral survey
	Lecture Dermatomyositis	Dermatomyositis.Definition, etiology. Pathological changes in muscle tissue in dermatomyositis. Classification. Major clinical syndromes. Various organ lesions in dermatomyositis. Diagnostics. Pharmacodynamics glucocorticosteroid: methylprednisolone, prednisolone; basic anti-inflammatory: cyclophosphamide, methotrexate, cyclosporine, azathioprine, hydroxychloroquine; non-steroidal anti-inflammatory drugs: diclofenac, aceclofenac, nimesulide, meloxicam.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson	Dermatomyositis.Definition, etiology. Pathological changes in muscle tissue in dermatomyositis. Classification.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the	oral questioning

	Dermatomyositis	Pathophysiological mechanisms of development of dermatomyositis. Major clinical syndromes. Various organ lesions in dermatomyositis. Diagnostics. Pharmacodynamics of glucocorticosteroids: methylprednisolone, prednisolone; basic anti-inflammatory: cyclophosphamide, methotrexate, cyclosporine, azathioprine, hydroxychloroquine; non-steroidal anti-inflammatory drugs: diclofenac, aceclofenac, nimesulide, meloxicam.			lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	
	SRSP. Theme and task of SRO Osteoarthritis	Osteoarthritis. Definition, etiology. Pathological changes in bone in osteoarthritis. Classification. Pathophysiological mechanisms of development of osteoarthritis. Pharmacodynamicsnon-steroidal anti-inflammatory drugs: diclofenac, aceclofenac, nimesulide, meloxicam;steroid anti-inflammatory:betamethasone acetate, triamcinolone, non-steroidal anti-inflammatory local: ointment diclofenac preparations; narcotic analgesics: tramadol.	RO 1,2,4, 7,9,11	2/6	Presentation Analysis wedge. cases, articles from leading scientific journals	Evaluation of the quality of design, oral survey
	Lecture anemia	anemia. General anemic syndrome. Iron-deficiency anemia. Folate deficiency anemia. B12 deficiency anemia. Definition. Etiology. Pathophysiological mechanisms of anemia development. Clinic, Diagnostics. Pharmacodynamics of drugs used in various types of anemia. Dispensary observation and prevention.	RO 1,2,4, 7,9,11	2	Overview lecture	Feedback (question-answer)
	Practical lesson anemia	anemia. General anemic syndrome. Iron-deficiency anemia. Folate deficiency anemia. B12 deficiency anemia. Definition. Etiology. Pathophysiological mechanisms of anemia development. Clinic, Diagnostics. Pharmacodynamics of iron preparations, ascorbic acid, folic acid, vit B12. Dispensary observation and prevention.	RO 1,2,4, 7,9,11	3	Discussion of the topic of the lesson	Check list
	SRSP. Theme and task of SRO thrombocytopenia	thrombocytopenia. congenital thrombocytopenia. thrombocytopenic purpura. Definition. Etiology. Pathophysiological mechanisms of development of thrombocytopenia. Clinical diagnostic criteria. Differential diagnosis. Pharmacodynamics glucocorticosteroid drugs: dexamethasone,prednisolone;	RO 1,2,4, 7,9,11	3/6	Presentation Analysis wedge. cases, articles from leading scientific journals	Evaluation of the quality of design, oral survey

		thrombopoietin receptor agonists: rituximab.				
	Lecture Acute leukemia	Acute leukemia. Acute lymphoblastic and myeloid leukemia.Definition, etiology. Pathophysiological mechanisms of development of acute leukemia. TNM classification. Chemotherapy. maintenance chemotherapy. GMALL protocols in the treatment of acute leukemia. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroid drugs: prednisolone, methylprednisolone; thrombopoietin receptor agonists: rituximab.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Acute leukemia	Acute leukemia. Acute lymphoblastic and myeloid leukemia.Definition, etiology. Pathophysiological mechanisms of development of acute leukemia. TNM classification. Chemotherapy. maintenance chemotherapy. GMALL protocols in the treatment of acute leukemia. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroid drugs: prednisolone, methylprednisolone; thrombopoietin receptor agonists: rituximab. Criteria for the effectiveness of treatment. Forecast.	RO 1,2,4, 7,9,11	2	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	oral questioning
	SRSP. Theme and task of SRO Diseases of the pituitary gland.	Diseases of the pituitary gland. Definition. Classification. Etiology. Pathophysiological mechanisms of development of hyperprolactinemia. Clinical diagnostic criteria. Differential diagnosis. Pharmacodynamics of dopamine agonists (cabergoline, bromocriptine),	RO 1,2,4, 7,9,11	3/5	Presentation Analysis wedge. cases, articles from leading scientific journals	Evaluation of the quality of design, oral survey
	Lecture chronic leukemia	Chronic leukemia. Chronic lymphocytic leukemia and myeloid leukemia. Definition, etiology. Pathophysiological mechanisms of development of chronic leukemia. TNM classification. Chemotherapy. maintenance chemotherapy. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroid drugs: prednisolone, methylprednisolone; thrombopoietin receptor agonists:	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)

		rituximab. Criteria for the effectiveness of treatment. Forecast.				
	Practical lesson Chronic leukemia	Chronic leukemia. Chronic lymphocytic leukemia and myeloid leukemia. Definition, etiology. Pathophysiological mechanisms of development of chronic leukemia. TNM classification. Chemotherapy. maintenance chemotherapy. Pharmacodynamics of immunosuppressive: azathioprine, cyclophosphamide, methotrexate, hydroxychloroquine, mycophenolate mofetil, cyclosporine; glucocorticosteroid drugs: prednisolone, methylprednisolone; thrombopoietin receptor agonists: rituximab. Criteria for the effectiveness of treatment. Forecast.	RO 1,2,4, 7,9,11	2	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient, Trello board	oral questioning
	SRSP. Theme and task of SROPheochromocytoma **Project Protection**	Pheochromocytoma. Definition. Etiology. Pathophysiological mechanisms of pheochromocytoma development. Clinic. Diagnostics. Pharmacodynamics of α-blockers: doxazosin, calcium channel blockers: nifedipine, amlodipine; б-blockers: propranolol, atenolol. Prevention.	RO 1,2,4, 7,9,11	3/5	Protection of the project.	Evaluation project protection Evaluation Checklist project.
	Lecture Diabetes	Diabetes mellitus, definition, etiology. Pathophysiological mechanisms of development of diabetes mellitus. SD classification. clinical picture. Determining the severity of diabetes. The main differences between diabetes mellitus type 1 and 2. Diagnosis, pharmacodynamics of hypoglycemic drugs: sulfonylurea drugs: gliclazide, glimepiride, glibenclamide; glinides: repaglinide; biguanides: metformin; ultrashort-acting insulins; short-acting insulins;intermediate-acting insulins; long-acting insulins; long-acting insulins. Dispensary supervision. Prevention.	RO 1,2,4, 7,9,11	1	Overview lecture	Feedback (question-answer)
	Practical lesson Diabetes	Diabetes mellitus, definition, etiology. Pathophysiological mechanisms of development of diabetes mellitus. SD classification. clinical picture. Determining the severity of diabetes. The main differences between diabetes mellitus type 1 and 2. Diagnosis, Pharmacodynamics of hypoglycemic drugs: sulfonylurea drugs: gliclazide, glimepiride, glibenclamide; glinides: repaglinide; biguanides: metformin; ultrashort-acting insulins; short-	RO 1,2,4, 7,9,11	2	Discussion of the topic of the lesson, solving situational problems, mastering practical skills, cyber patient,	Check list

		acting insulins;intermediate-acting insulins; long-acting insulins; long-acting insulins. Dispensary supervision. Prevention.			Trello board.	
	SRSP. Theme and task of SRO metabolic syndrome Frontier control No. 2	metabolic syndrome. Definition. Etiology. Pathophysiological mechanisms of development of the metabolic syndrome. Classification. Clinic, diagnostics. Treatment. Prevention.	RO 1,2,4, 7,9,11	3/5	Presentation Analysis wedge. cases, articles from leading scientific journals Testing, oral questioning	Evaluation of the quality of design, oral survey

9.	**Teaching methods and forms of controls**	
9.1	Lectures	Overview lectures
9.2	Practical lessons	Discussion of the topic of the lesson. Work in small groups. Execution of test tasks. "Standardized patient" Solution of situational problems. Analysis of clinical cases. Work with the clinical protocol of the Ministry of Health of the Republic of Kazakhstan, cyber patient, Trello board
9.3	SRSP/SRS	Work on the project: drawing up a work plan. Analysis of scientific articles in the form of a presentation, drafting and solving situational problems / project work. Drawing up a work plan for a scientific project.
9.4	Frontier control	Testing, oral questioning.

10.	**Evaluation criteria**
10.2	**Criteria for evaluating the learning outcomes of the discipline**

Checklist for a practical lesson (discussion of classes, solving situational problems)

No.	**step by step**	**Score in points**			
1	Highlight the main syndromes	1	0.7	0.4	0
2.1 2.2	Decipher the results of laboratory and instrumental studies	1	0.7	0.4	0
3	Substantiate and formulate a diagnosis	1	0.8	0.6	0
4	Make a treatment plan	1	0.8	0.6	0
	Total:	**4.0**	**3.0**	**2.0**	**0**

Check paper for SRO

Evaluation criteria	**Unsatisfactory 0-49**	**Satisfactorily 50-69**	**Fine 70-89**	**Great 90-100 points**	**Exhibition laziness score**
Demonstrates knowledge and understanding of medical research	Doesn't show	Chaotic, detailing irrelevant facts	Knowledge with the fixation of facts that do not give a complete picture of the essence of the research	Knowledge is systematic, fully reflects the understanding of research in the field of medicine	

Able to solve problems within their qualifications based on scientific approaches	Incapable of problem solving	Makes decisions with difficulty, cannot justify	Decisions are right justification partial	Decisions are right justifications are given in full	
Uses scientific information and the principles of evidence-based medicine to develop within their qualifications	Does not use	Uses incorrect or inaccurate information	Uses partially	Uses in full	
Demonstrates introspection skills	Doesn't show	the diagnosis is justified chaotically, unconvincingly	adequate, but with minor omissions	In full, adequate	
Uses oratory and public speaking at in-hospital conferences, seminars, discussions	Does not perform	Performs, rarely, without enthusiasm	Speeches and reports with minor inaccuracies	Speaks and reports, wins an audience, is persuasive in his speeches	
Able to conduct research and work for a scientific result	Does not conduct research	Conducts research, but cannot systematize them	Conducts research, conclusions are partial, the analysis is not complete.	Conducts research, draws conclusions from research, publishes	
Final score					

10.2	**Multi-point system of knowledge assessment**		
Grading by letter system	Digital equivalent of points	Percentage	Assessment according to the traditional system
A	4.0	95-100	Great
A -	3.67	90-94	
B +	3.33	85-89	Fine
IN	3.0	80-84	
IN -	2.67	75-79	
C +	2.33	70-74	
WITH	2.0	65-69	Satisfactorily
WITH -	1.67	60-64	
D+	1.33	55-59	
D-	1.0	50-54	
FX	0.5	25-49	unsatisfactory

elev en.	**Learning Resources**
Electronic textbooks	1. Internal diseases - V.S. Moiseev, A.I. Martynov, N.A. Mukhin. Volume 2. https://obuchalka.org/20201029126375/vnutrennie-bolezni-tom-2-moiseev-vs.html 2. Textbook on Hematology. N.I. Stuklov. 2018 https://t.me/medknigi_archiv/496 3. Guidelines for the treatment of diseases of internal organs. Volume 5 A.N. Okorokov. 2018 https://t.me/medknigi_arhiv/295

	4. Internal diseases. The digestive system. A.V. Strutynsky; G.E. Roitberghttps://t.me/medknigi_arhiv/499 Internal diseases Digestive system. Roitberg 2018 https://t.me/medknigi_archiv/504 5. 1. Klippel J.H., Stone J.H. Rheumatic diseases. Volume I Fundamentals of Rheumatology 2. Klippel J.H., Stone J.H. Rheumatic diseases. Volume II Diseases of bones and joints 3. Klippel J.H., Stone J.H. Rheumatic diseases. Volume III Soft Tissue Diseases https://vk.com/wall-66567433_11713
Electronic resources, limited to: databases including, but not limited to, simulation animations, professional blogs, websites, other electronic reference materials (for example: video, audio, digests)	1. Academician Mazurov V.I.: Rheumatoid arthritis: modern principles of diagnosis and treatment https://youtu.be/DBXGxBSAcEo 2.Stryuk R.I. Internal diseases [Electronic resource]: Part 1: textbook /R.I. Stryuk, I.V. Maev - Almaty: Evero publishing house, 2020. - 296 pp. Epigraph 3.Stryuk R.I. Internal diseases [Electronic resource]: part 2: textbook /R.I. Stryuk, I.V. Maev - Almaty: Evero publishing house, 2020. - 284 pp. Epigraph 4. Hematology. Essentials for Therapist. https://youtu.be/32ck8-G_77k
Laboratory/Physical Resources	http://lib.ukma.kz
Special programs	http://10.10.202.52 http://89.218.155.74
Journals (electronic journals)	Republican Interuniversity digital library http://rmebrk.kz/
Electronic resources	UKMA Repository http://lib.ukma.kz/repository/ Republican interuniversity electronic library http://rmebrk.kz/ "Aknurpress" digital library https://aknurpress.kz/login "Zan" database of legal acts https://zan.kz/ru "Paragraph Medicine" information base https://online.zakon.kz/Medicine/
Literature	http://www.studmedlib.ru

12.	**Politics of discipline**

- Missing classes without a good reason is not allowed.
- Make up missed classes in a timely manner for a good reason.
- Attending classes, TSIS and lectures on time.
- The student must have an appropriate appearance (robe, cap, change of shoes, etc.).
- The student has a medical sanitary book.
- Timely completion of tasks under the SRS.
- The student must treat teachers and fellow students with respect.

Careful attitude of students to the property of the department

Training requirements, penalties

- a penalty point for missing one lecture without a good reason is 1.0 points;

- a student who does not appear at the boundary control without a valid reason is not allowed to take the exam in the discipline. A student who did not appear at the border control for a good reason, immediately after he started classes, submits an application addressed to the dean, provides supporting documents (due to illness, family circumstances or other objective reasons), receives a work sheet that is valid for the period referred to in paragraph 12.4. The results of midterm control are provided to the dean's office in the form of a report before the end of the control week.

– The SIW score is set in the SIWT classes according to the schedule in the academic progress journal and the electronic journal, taking into account penalty points, is subtracted from the SIW marks).

– if you miss one session of the SIWT - a penalty point of 2.0;

– A student who has not scored a passing score (50%) in one of the types of controls (current control, boundary control No. 1 and / or No. 2) is not allowed to take the exam in the discipline.

13.	**Academic policy based on the moral and ethical values of the academy**
	www.ukma.kz, → section Academic policy. P. 4 Student Honor Code
	Grading policy for the discipline – **Frontier control**knowledge of students is carried out at least twice during one academic period on 8/12 days of theoretical training with putting down the results of milestone controls in the educational journal of progress and the electronic journal, taking into account penalty points for missing lectures (missing lectures in the form of penalty points are deducted from the grades of boundary control). - The results of midterm control are provided to the dean's office in the form of a report before the end of the control week. – The examination grade is set on the basis of the results of the current and midterm controls - the assessment of the admission rating (ORA) (60%) and the final control - the marks on the exam (40%). – ORD (Admission Rating Score) is defined as the average score for practical training, SRS, and midterm control. – A student who has scored a minimum score of the ORD equal to 1 (15%) and above is allowed to take the exam. – The final grade for the discipline will be the sum for the current performance (ARA) and the grade for the exam. The final score according to the point-rating letter system is: – percentage of final grade – Digital equivalent of points – letter equivalent of points – assessment according to the traditional system

Criteria for evaluating project work

Criteria "Goal setting and project planning"	**Points**
Goal not stated	**unsatisfactory 0-49%**
The goal is formulated, but there is no plan to achieve it	**satisfies 50-69%**
The goal is formulated, justified, a schematic plan for its achievement is given	**Fine 70-89%**
The goal is formulated, clearly justified, a detailed plan for its achievement is given.	**Great 90-100%**
***Criterion*"Statement and justification of the project problem"**	
The problem of the project is not formulated	**unsatisfactory 0-49%**

The formulation of the project problem is superficial.	**satisfies 50-69%**
The problem of the project is clearly formulated and justified	**Fine 70-89%**
The problem of the project is clearly formulated, justified and has a deep character	**Great 90-100%**
***Criterion*"The variety of sources of information used**	
Information not relevant to the topic and purpose of the project was used	**unsatisfactory 0-49%**
Most ofThe information provided is not related to the topic of the work.	**satisfies 50-69%**
The work contains a small amount of relevant information from a limited number of similar sources.	**Fine 70-89%**
The work contains sufficiently complete information from various sources.	**Great 90-100%**
***Criterion*"The depth of disclosure of the theme of the project"**	
The topic of the project is not disclosed	**unsatisfactory 0-49%**
The theme of the project is disclosed in fragments	**satisfies 50-69%**
The topic of the project is disclosed, the author showed knowledge of the topic within the framework of the work program for the discipline under study	**Fine 70-89%**
The topic of the project is disclosed exhaustively, the author has demonstrated deep knowledge that goes beyond the scope of the work program being studied	**Great 90-100%**
***Criterion*"Analysis of the progress of work and the results obtained, conclusions"**	
No attempt has been madeanalyze progress and results	**unsatisfactory 0-49%**
The analysis is replaced by a brief description of the progress and order of work	**satisfies 50-69%**
A detailed result of the work to achieve the goals stated in the project is presented.	**Fine 70-89%**
An exhaustive analysis of the results of the work is presented, the necessary conclusions are drawn, and prospects for work are outlined.	**Great 90-100%**
***Criterion*"Achievement of the goal and compliance with the content of the project"**	
The goals stated in the project were not achieved	**unsatisfactory 0-49%**
Substantial partthe methods of work used do not correspond to the theme and purpose of the project	**satisfies 50-69%**
The methods of work used correspond to the theme and purpose of the project, but are insufficient	**Fine 70-89%**
Methods of work are sufficient and used appropriately and effectively, project objectives are achieved	**Great 90-100%**
***Criterion*"Personal participation, creative approach to work"**	
The work is template, showing the formal attitude of the author	**unsatisfactory**

	0-49%
The author showed little interest in the topic of the project, but did not demonstrate independence in work, did not use the possibilities of a creative approach	**satisfies 50-69%**
The work is independent, demonstrating insufficient full participation, an attempt was made to present a personal view on the topic of the project, elements of creativity were applied	**Fine 70-89%**
The work is distinguished by a creative approach, full participation and the author's own original attitude to the idea of the project.	**Great 90-100%**
***Criterion*"Compliance with the requirements for the design of the written part"**	
The written part of the project does not meet the requirements, all sections of the work are not disclosed and the work is not submitted on time	**unsatisfactory 0-49%**
In the written part of the work, all sections are partially disclosed, fundamental mistakes	**satisfies 50-69%**
The work contains typos, incorrect expressions	**Fine 70-89%**
The work fully reflects:relevance of the topic, novelty and practical significance, conclusions, recommendations, the degree of problem solving and completion of the work, the correctness of its formulation, the author's acquaintance with scientific literature, the depth of discussion, the literacy of the presentation and the work was delivered on time according to the schedule	**Great 90-100%**
***Criterion*"The quality of the presentation"**	
There are a large number of fundamental errors in the presentation and answering questions.	**unsatisfactory 0-49%**
There are some minor fundamental errors and inaccuracies in the presentation; when answering questions, partial fundamental errors	**satisfies 50-69%**
The presentation contains typos, incorrect expressions, some non-fundamental errors, inaccuracies in answering questions	**Fine 70-89%**
The presentation in terms of style, presentation of information, content, text meets the general requirements for presentation design. The author confidently and accurately answers questions	**Great 90-100%**
***Criterion*"Quality of the final product"**	
Project product missing	**unsatisfactory 0-49%**
Design product does not meet quality requirements (aesthetics, usability, fit for purpose)	**satisfies 50-69%**
The product does not fully meet the quality requirements	**Fine 70-89%**
The product fully complies with the quality requirements (aesthetic, convenient to use, meets the stated goals)	**Great 90-100%**

14.	Approval and revision		
Date of approval at the department	**Protocol No.**	**FULL NAME. manager**	**Signature**
31.08.2022	*№1*	*Asanova G.K.*	
Date of revision	**Protocol No.**	**FULL NAME. manager**	**Signature**
25.11.2022	*№4*	*Asanova G.K.*	
CPC revision date	**Protocol No.**	**FULL NAME. COP Chairman**	**Signature**
26.12.2022	*№4*	*MD, acting Professor Sadykova A.Sh.*	