

EUROPEAN MEDICAL UNIVERSITY

SYLLABUS OF THE EDUCATIONAL DISCIPLINE "INTERNAL MEDICINE "

Cycle of Higher Education:	second cycle of higher education (Master's degree)
Field of Study:	22 «Healthcare»
Specialty:	222 «Medicine»
Educational qualification:	Master of Medicine
Professional qualification:	doctor

Teachers stuff:

Chief of the Department of Internal Medicine with a Course of Preventive Disciplines, MD, PhD, DrMedSc, professor Dmytro DYUDYUN

Associate professor of Department of Internal Medicine with a Course of Preventive Disciplines, PhD Olha BOYKO

Ass. professor of Department of Internal Medicine with a Course of Preventive Disciplines, Irina ZAYATS

1. Name, Code of the discipline and number of credits**SYLLABUS OF THE EDUCATIONAL DISCIPLINE "INTERNAL MEDICINE"**

Cycle of Higher Education: second cycle of higher education (Master's degree)

Field of Study: 22 «Healthcare»

Specialty: 222 «Medicine» (6 course)

Educational qualification: Master of Medicine

Professional qualification: doctor

Semester: 11th (12th)

Number of credits ECTS (number of hours): 19 ECTS credits (570 hours).

Distribution by types of trainings and hours of study – Lectures 20 hours, Practical (clinical) lessons – 320 hours, Independent work – 230 hours.

Prerequisite: Propaedeutics of Internal Medicine, Propaedeutics of Other Clinical Disciplines (Pediatrics, General Surgery), internal medicine, which is studied in the 4th and 5th years, other basic disciplines (Medical Biology, Medical and Biological Physics, Bioorganic and Biological Chemistry, Histology, Cytology and Embryology, Human Anatomy, Pathomorphology, Physiology and Pathophysiology, Microbiology, Virology and Immunology, Radiology.

Postrequisition: the discipline "Internal Medicine" 6th year is closely integrated with Pediatrics, Surgery, Obstetrics and Gynecology, Social Medicine, Public Health, Urology, Epidemiology, Otorhinolaryngology, Occupational Diseases, Ophthalmology, Dermatology, Venereology, Radiology, Forensic medicine, Psychiatry, Narcology, Oncology, Infectious Diseases, Traumatology and Orthopedics, Anesthesiology and Intensive Care; lays the foundations for a deeper study of Palliative and Hospice Medicine, General Practice (Family Medicine), Emergency and Urgent Care in the clinic of Internal Medicine.

4. Characteristic of the educational discipline**4.1. Purpose and definition of the educational discipline:**

The purpose of teaching the academic discipline "Internal medicine" is the provision of academic training in internal medicine and the preparation of graduates for the professional activity of a doctor in the relevant primary position by acquiring general and special competencies, the scope of which is at least described by defined lists of syndromes and symptoms of diseases, emergency conditions, physiological conditions

and diseases that require special patient management tactics; laboratory and instrumental research, medical manipulations; issues of labor and forensic examination.

4.2. Tasks of educational “Internal Medicine” discipline

- to conduct surveys and physical examinations of patients and analyze their results in the clinic of internal medicine;
- to determine the etiological and pathogenetic factors of the most common diseases in the clinic of internal medicine;
- to classify and analyze the typical clinical picture of the most common diseases in the clinic of internal medicine;
- identify different clinical variants and complications of the most common diseases in the clinic of internal medicine;
- to determine leading syndromes and symptoms in the clinic of internal medicine.
- to justify and formulate a preliminary diagnosis of the most common diseases in the clinic of internal medicine;
- to draw up a patient examination plan, interpret the results of laboratory and instrumental studies for the most common diseases in the internal medicine clinic and their complications;
- to carry out differential diagnosis, substantiate and formulate a clinical diagnosis of the main diseases in the clinic of internal medicine;
- to determine the management tactics (recommendations regarding the regime, diet, treatment, rehabilitation measures) of the patient with the most common diseases in the clinic of internal medicine;
- to prescribe non-drug and drug treatment, including prognosis-modifying, the most common diseases in the clinic of internal medicine;
- carry out non-medicated and medicated primary and secondary prevention of major diseases in the clinic of internal medicine;
- to determine the prognosis and working capacity of patients with major diseases in the clinic of internal medicine;
- to diagnose and provide medical assistance in case of emergency conditions in the clinic of internal medicine;
- to apply the basic algorithms of intensive therapy of emergency conditions in the clinic of internal medicine;
- perform medical manipulations;
- to keep medical documentation in the clinic of internal medicine
- to demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination.

4.3. Appointment of the discipline

Competencies.

Integral competence:

Ability to solve complex problems and problems in a certain field of professional activity or in the learning process, which involves research and / or innovation and is characterized by uncertainty of conditions and requirements.

General competencies:

- Ability to abstract thinking, analysis and synthesis.

- Ability to learn and master modern knowledge.
- Ability to apply knowledge in practical situations.
- Knowledge and understanding of the subject area and understanding of professional activity.
- Ability to adapt and act in a new situation.
- Ability to make informed decisions.
- Ability to work in a team.
- Ability to choose a communication strategy; to show skills of interpersonal interaction.
- Ability to communicate in the state language both orally and in writing.
- Have the skills to use information and communication technologies.
- Definiteness and persistence in relation to the set tasks and responsibilities.
- Ability to act socially responsibly and consciously.
- Ability to act on the basis of ethical considerations (motives).

Special (professional) competencies:

- Skills of interviewing and clinical examination of the patient.
- Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.
- Ability to establish a preliminary and clinical diagnosis of the disease.
- Ability to determine the principles and nature of treatment of diseases.
- Ability to determine the required mode of work and rest in the treatment of diseases.
- Ability to diagnose emergencies.
- Ability to determine the tactics of emergency medical care.
- Skills in providing emergency medical care.
- Skills to perform medical manipulations.
- Ability to determine the tactics of management of persons subject to dispensary supervision.
- Ability to keep medical records.

Program learning outcomes:

- Collect data on patient complaints, medical history, life history, conduct and evaluate the results of physical examination.
- Evaluate information about the diagnosis using a standard procedure based on the results of laboratory and instrumental studies.
- Highlight the leading clinical symptom or syndrome. Establish the most probable or syndromic diagnosis of the disease. Assign laboratory and / or instrumental examination of the patient. Carry out differential diagnosis of diseases. Establish a preliminary and clinical diagnosis.
- Determine the necessary mode of work and rest in the treatment of the disease.
- Determine the necessary therapeutic nutrition in the treatment of the disease.
- Determine the principles and nature of treatment (conservative, operative) of the disease.
- Determine the tactics of emergency medical care based on the diagnosis of emergency.
- Provide emergency medical care based on an emergency diagnosis.

- Perform medical manipulations.
- Determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food products for children of the first year of life.
- Determine the presence and degree of life restrictions, type, degree and duration of incapacity with the preparation of relevant documents.
- Be able to keep medical records.
- Organize the work of medical staff; to form rational medical routes of patients; organize interaction with colleagues, organizations and institutions; apply tools to promote medical services.
- Form goals and determine the structure of personal activity.
- Adhere to the requirements of ethics, bioethics and deontology in their professional activities.
- Organize the necessary level of individual safety (own and those cared for) in case of typical dangerous situations in the individual field of activity.

4.4 Content of the discipline

Lectures plan (L)

Semester: 11(12)

1. Arterial hypertension. Modern aspects of diagnostics, classification. Treatment
2. Metabolic syndrome. Modern diagnostic criteria. Its place is in cardiology practice and internal medicine clinic. Treatment. Prevention.
3. Acute coronary syndrome: unstable angina, myocardial infarction (pathogenesis, clinic, modern approaches to therapy). atherosclerosis.
4. Heart rhythm and conduction disorders: classification, diagnosis and methods of treatment. Chronic heart failure
5. Cardiomegaly. Thromboembolism of the pulmonary artery.
6. Diagnosis and treatment of joint diseases.
7. Fever of unknown etiology. Hemorrhagic diathesis
8. Pain and dyspepsia syndrome. Differential diagnosis of liver diseases. Jaundice.
9. COPD, BA - modern approaches to diagnosis and treatment. Pneumonia
10. Urinary and nephrotic syndrome. Anemia. Leukemia. Leukemoid reactions

Clinical lessons plan (CL)

Semester: 11(12)

1. Management of patients with arterial hypertension
2. Management of patients with arterial hypertension, emergency conditions (hypertensive crises)
3. Management of patients with metabolic syndrome.
4. Management of patients with chest pain (chronic coronary artery disease, pericarditis)
5. Treatment of patients with chest pain (myocarditis, cardiomyopathy, etc.)
6. Management of patients with ACS
7. Management of patients with heart rhythm disorders

8. Treatment of patients with shortness of breath (pulmonary embolism)
9. Management of a patient with chronic heart failure
10. Management of a patient with cardiomegaly
11. Management of a patient with heart murmurs
12. Final class in cardiology
13. Management of a patient with pain in the back and limbs
14. Management of patients with arthralgia/myalgia
15. Management of a patient with joint syndrome
16. Management of a patient with purpura (hemorrhagic syndrome)
17. Management of a patient with fever and weight loss
18. Final class in rheumatology
19. Emergency conditions in cardiology
20. Final lesson (cardiovascular and rheumatic diseases, emergency conditions)
21. Management of patients with dysphagia and heartburn
22. Management of patients with psychosomatic pathology in gastroenterology (functional dyspepsia, irritable bowel syndrome)
23. Management of patients with abdominal pain
24. Management of a patient with jaundice
25. Management of a patient with hepatomegaly, portal hypertension and ascites
26. Management of a patient with gastrointestinal bleeding
27. Final class on gastroenterology
28. Management of a patient with pulmonary infiltrate
29. Management of a patient with pneumonia
30. Management of a patient with broncho-obstructive syndrome (COPD, BA)
31. Management of a patient with a chronic cough
32. Management of a patient with asphyxia
33. Management of a patient with hemoptysis
34. Management of a patient with pleural effusion
35. Final lesson on pulmonology
36. Management of a patient with anemia
37. Management of a patient with lymphadenopathy, leukocytosis
38. Management of patients with urinary syndrome, nephrotic syndrome, chronic kidney disease
39. Management of a patient with coma, oliguria, acute liver failure
40. Final control (diseases of the digestive tract, respiratory organs, kidneys, hematopoiesis)

Independent work topics (IW)

Semester: 11(12)

1. Interpretation of pleural fluid analysis results.
2. Interpretation of sputum analysis results.
3. Interpretation of the results of X-ray examinations.
4. Interpretation of the results of a general blood test.
5. Interpretation of the results of the general analysis of urine.
6. Interpretation of urine analysis results according to Nechyporenko.
7. Interpretation of urine analysis results according to Zimnitskyi.

8. Interpretation of the results of the glomerular filtration rate.
9. Blood pressure measurement algorithm.
10. Diagnostic value of body mass index assessment.
11. Rules for conducting and interpreting the results of an electrocardiographic study.
12. Fundamentals of echocardiographic research and interpretation of results.
13. Interpretation of biochemical research results.
14. Clinical significance of instrumental research methods.
15. Laboratory diagnosis of hepatitis and liver cirrhosis.
16. Differential diagnosis of gastroesophageal reflux disease.
17. Differential diagnosis of dyspeptic syndrome in chronic gastritis and gastroduodenitis.
18. Differential diagnosis of peptic ulcer disease of the stomach and duodenum.
19. Differential diagnosis of organic and functional diseases of the gallbladder and biliary tract. Chronic cholecystitis.
20. Differential diagnosis of celiac disease and other enteropathies.
21. Differential diagnosis of organic and functional intestinal diseases.
22. Differential diagnosis of hepatitis.
23. Differential diagnosis of liver cirrhosis.
24. Chronic pancreatitis.
25. Differential diagnosis of chronic obstructive lung diseases.
26. Modern view of diagnosis, clinic, treatment of bronchial asthma.
27. Differential diagnosis of pneumonia of various etiology.
28. Differential diagnosis of pleuritis.
29. Differential diagnosis of infectious, destructive diseases of the bronchopulmonary system. Respiratory failure.
30. Differential diagnosis of anemia.
31. Differential diagnosis of acute and chronic leukemias.
32. Differential diagnosis of hypertension syndrome.

Semester: 11(12)

Credit structure of “Internal Medicine” discipline.

6 course

Content section 1 “Internal Medicine”					
Lecture	hours	Clinical lessons	hours	Independent work	hours
Arterial hypertension. Modern aspects of diagnostics, classification. Treatment.	2	Management of patients with arterial hypertension.	5	Blood pressure measurement algorithm.	7
-		Management of patients with arterial hypertension, emergency conditions (hypertensive crises).	12	Differential diagnosis of hypertension syndrome.	8
Metabolic syndrome. Modern diagnostic	2	Management of patients with metabolic syndrome.	5	Diagnostic value of body mass index assessment.	7

criteria. Its place is in cardiology practice and internal medicine clinic. Treatment. Prevention.					
-	-	Management of patients with chest pain (chronic coronary artery disease, pericarditis).	5	-	-
-	-	Treatment of patients with chest pain (myocarditis, cardiomyopathy, etc.).	12	Fundamentals of echocardiographic research and interpretation of results.	8
Acute coronary syndrome: unstable angina, myocardial infarction (pathogenesis, clinic, modern approaches to therapy). Atherosclerosis.	2	Management of patients with ACS.	12	-	-
-	-	Management of patients with heart rhythm disorders.	12	-	-
Cardiomegaly. Thromboembolism of the pulmonary artery.	2	Treatment of patients with shortness of breath (pulmonary embolism).	5	-	-
Heart rhythm and conduction disorders: classification, diagnosis and methods of treatment. Chronic heart failure.	2	Management of a patient with chronic heart failure.	12	Rules for conducting and interpreting the results of an electrocardiographic study	7
-	-	Management of a patient with cardiomegaly.	5	-	-
-	-	Management of a patient with heart murmurs.	5	Clinical significance of instrumental research methods.	7
-	-	Final class in cardiology.	7	-	-
-	-	Management of a patient with pain in the back and limbs.	5	-	-
-	-	Management of patients with arthralgia/myalgia.	12	Interpretation of biochemical research results.	7

Diagnosis and treatment of joint diseases.	2	Management of a patient with joint syndrome.	5	-	-
Fever of unknown etiology. Hemorrhagic diathesis.	2	Management of a patient with purpura (hemorrhagic syndrome).	12	-	-
-	-	Management of a patient with fever and weight loss.	5	-	-
-	-	Final class in rheumatology.	7	-	-
-	-	Emergency conditions in cardiology.	12	-	-
-	-	Final lesson (cardiovascular and rheumatic diseases, emergency conditions).	7	-	-
-	-	Management of patients with dysphagia and heartburn.	5	Differential diagnosis of gastroesophageal reflux disease.	7
-	-	Management of patients with psychosomatic pathology in gastroenterology (functional dyspepsia, irritable bowel syndrome).	6	Differential diagnosis of organic and functional intestinal diseases.	8
Pain and dyspepsia syndrome. Differential diagnosis of liver diseases. Jaundice.	2	Management of patients with abdominal pain.	12	Differential diagnosis of dyspeptic syndrome in chronic gastritis and gastroduodenitis.	7
				Differential diagnosis of peptic ulcer disease of the stomach and duodenum.	7
				Chronic pancreatitis.	7
		Management of a patient with jaundice.	6	Differential diagnosis of organic and functional diseases of the gallbladder and biliary tract. Chronic cholecystitis.	8
-	-	Management of a patient with hepatomegaly, portal hypertension and ascites.	12	Laboratory diagnosis of hepatitis and liver cirrhosis.	7
				Differential diagnosis of hepatitis.	7
				Differential diagnosis of liver cirrhosis.	7
-	-	Management of a patient with gastrointestinal bleeding.	6	Differential diagnosis of celiac disease and other enteropathies.	7
-	-	Final class on gastroenterology.	7	-	-

-	-	Management of a patient with pulmonary infiltrate.	6	Interpretation of the results of X-ray examinations.	7
COPD, BA - modern approaches to diagnosis and treatment. Pneumonia.	2	Management of a patient with pneumonia.	7	Differential diagnosis of pneumonia of various etiology.	7
		Management of a patient with broncho-obstructive syndrome (COPD, BA).	6	Differential diagnosis of chronic obstructive lung diseases.	7
				Modern view of diagnosis, clinic, treatment of bronchial asthma.	8
-	-	Management of a patient with a chronic cough.	6	Interpretation of sputum analysis results.	7
-	-	Management of a patient with asphyxia.	6	-	-
-	-	Management of a patient with hemoptysis.	12	-	-
-	-	Management of a patient with pleural effusion.	6	Interpretation of pleural fluid analysis results.	7
				Differential diagnosis of pleuritis.	7
				Differential diagnosis of infectious, destructive diseases of the bronchopulmonary system. Respiratory failure.	8
-	-	Final lesson on pulmonology.	7	-	-
Urinary and nephrotic syndrome. Anemia. Leukemia. Leukemoid reactions.	2	Management of a patient with anemia.	6	Differential diagnosis of anemia.	7
				Interpretation of the results of a general blood test.	7
		Management of a patient with lymphadenopathy, leukocytosis.	6	Differential diagnosis of acute and chronic leukemias.	7
		Management of patients with urinary syndrome, nephrotic syndrome, chronic kidney disease.	12	Interpretation of the results of the general analysis of urine.	7
				Interpretation of urine analysis results according to Nechyporenko.	7

				Interpretation of urine analysis results according to Zimnytskyi.	7
		Management of a patient with coma, oliguria, acute liver failure.	12	Interpretation of the results of the glomerular filtration rate.	7
-	-	Final control (diseases of the digestive tract, respiratory organs, kidneys, hematopoiesis).	7	-	-
Hours:	20	-	320	-	230
All hours of discipline:	570				

Topics of the lecture course: reveal problematic issues in the relevant sections “Internal Medicine” VI course.

Clinical classes provide theoretical justification of the main issues of the topic and acquiring the following practical skills:

List of practical skills:

Applicants should practically be able to:

- o Conduct interviews and physical examinations of patients with underlying cardiac conditions
- o To justify the use of the main invasive and non-invasive diagnostic methods used in cardiology, to determine indications and contraindications for their implementation, possible complications
- o Determine the etiological and pathogenetic factors of the main heart diseases
- o Identify the typical clinical picture of the main heart diseases
- o Identify different courses and complications of the main heart diseases
- o Draw up a plan for examination of patients with major heart diseases
- o Carry out a differential diagnosis, justify and formulate a diagnosis for the main heart diseases based on the analysis of laboratory and instrumental examination data
- o Prescribe treatment, carry out primary and secondary prevention for major heart diseases
- o Diagnose and provide care for acute heart failure
- o Record and interpret 12-lead ECG
- o Measure and interpret blood pressure
- o Diagnose and provide assistance in case of circulatory and respiratory arrest
- o Diagnose and provide assistance in hypertensive crisis
- o Diagnose and treat shock
- o Diagnose and provide assistance with paroxysmal heart rhythm disorders
- o Diagnose and provide care for Morganhi-Edems-Stokes syndrome
- o Carry out cardiopulmonary resuscitation
- o Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination
- o Know the primary and secondary risk factors for major diseases of internal organs
- o Know the relevance of the problem of overweight and obesity and its medical consequences
- o To be able to carry out examination and diagnosis of diseases of internal organs in obese persons
- o Conduct interviews and physical examinations of patients with underlying joint and connective tissue diseases.
- o To justify the use of the main invasive and non-invasive diagnostic methods used in rheumatology, to determine the indications and contraindications for their use, possible complications
- o Determine the etiological and pathogenetic factors of the main diseases of the joints and connective tissue
- o Identify the typical clinical picture of the main diseases of the joints and connective tissue

- o To identify typical variants of the course and complications of the main diseases of the joints and connective tissue
- o Draw up an examination plan for patients with major joint and connective tissue diseases
- o Carry out a differential diagnosis, substantiate and formulate a diagnosis for the main diseases of the joints and connective tissue based on the analysis of laboratory and instrumental examination data
- o Prescribe treatment, carry out primary and secondary prevention for the main diseases of the musculoskeletal system and connective tissue
- o Be able to interpret the data of echocardiographic examination and radiographic examination of joints
- o Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination
- o To be able to carry out examination and diagnosis of diseases of internal organs in elderly people
- o Conduct interviews and physical examinations of patients with diseases of the urinary system
- o Know the main invasive and non-invasive diagnostic methods used in nephrology, indications and contraindications for their use, possible complications
- o Determine the etiological and pathogenetic factors of diseases of the urinary system
- o Identify the typical clinical picture of diseases of the urinary system
- o Identify the main variants of the course and complications of diseases of the urinary system
- o Draw up an examination plan for patients with diseases of the urinary system
- o Based on the analysis of laboratory and instrumental examination data, make a differential diagnosis, justify and formulate a diagnosis in diseases of the urinary system
- o Prescribe treatment, carry out primary and secondary prevention for diseases of the genitourinary system
- o Diagnose and provide assistance in acute renal failure
- o Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination
- o To be able to carry out primary and secondary prevention of internal diseases
- o Know the peculiarities of the organization of therapeutic care in wartime, the characteristics of modern combat therapeutic pathology
- o Be able to carry out medical triage of the injured at the stages of providing first medical and specialized therapeutic aid to the injured
- o Know the types of ionizing radiation, their units of measurement and dosimetry, features of peacetime radiation damage
- o To be able to determine the differential diagnostic criteria of degrees of severity of acute radiation sickness
- o Be able to provide medical assistance at the stages of medical evacuation in case of atypical forms of acute radiation sickness
- o To know the classification of pathological changes of internal organs in the wounded, general gunshot wound syndromes, features of diseases of internal organs (digestion, respiration, blood circulation, kidneys) in the wounded at the stages of medical evacuation
- o Be able to treat diseases of internal organs in the wounded at the stages of medical evacuation
- o To be able to carry out prevention of diseases of internal organs in the wounded
- o Know the general characteristics of injuries caused by poisonous substances, classification, scope of medical assistance
- o To be able to carry out staged treatment of those affected by poisonous substances during hostilities
- o To be able to organize emergency therapeutic assistance in case of acute poisoning at the stages of medical evacuation.

Independent work of a student provides for preparation for practical classes and final control, studying topics for independent out-of-class work, preparing abstract reports, presentations, tables. Control of learning results of topics of independent out-of-class work is carried out during the class and during final control in the discipline.

Individual work includes the study of scientific literature, preparation of reviews on the submitted topics for presentation, implementation of scientific and practical research, participation in specialized competitions, scientific and practical conferences, competitions of student scientific papers.

Calendar plans of practical classes, thematic plan of independent extracurricular work, scope and directions of individual work are published on the website of the Department.

Way for receiving materials: Website of EMU /Student/Department of Internal Medicine / Educational and methodological support of the Department/ Internal Medicine / or follow the link Department of Internal Medicine, discipline " Internal Medicine". Materials are accessed from the student's Office 365-based corporate account.

5. **Forms and methods of monitoring learning success**

Current control in practical classes	Methods: individual oral survey, structured written works, test tasks with the choice of correct answers.
Control of mastering the thematic section of the discipline in intermediate control classes	Methods: oral or written survey, electronic testing, <i>methods of self-control and self-assessment.</i>
Tools for diagnosing learning achievement	Theoretical questions, tests, clinically oriented situational tasks, practical tasks, demonstration of practical skills.
Final semester control at the end of the 11 th(12 th) semester	According to the regulation on control measures in EMU (regulation of EMU)
Final discipline control - <i>diff.credit</i>	Methods: pre-examination testing, oral survey, control of learning practical skills (According to the Regulation on control measures in the EMU (regulations of the EMU)

6. **Evaluation criteria**

Knowledge assessment is carried out according to regulation on control measures in EMU ([regulation of EMU](#)).

Current control	According to the four-point system of traditional grades: 5 "Excellent", 4 "Good", 3 "Satisfactory", 2 "Unsatisfactory"
Control of practical skills	According to the four-point system of traditional grades

Differential credit	On a 200-point scale (the sum of points for the current educational activity of the applicant, the result of the differential test and the successful completion of an individual task, if any) Enrolled: from 120 to 200 points. Failed: less than 120 points (see grading scale)
Discipline assessment:	The score on the discipline is determined based on the results of assessment of current activities and is expressed using a fourpoint scale : ("Excellent", "Good", "Satisfactory", "Unsatisfactory"), multi-point scale and ECTS. In order to be positively certified in the discipline, the Applicant must receive a score of at least 60% of the maximum number of points for the discipline (at least 120 points) for the current educational activity. The maximum number of points is 200. The number of points obtained by the Applicant for the current success in the discipline is defined as the arithmetic average of the number of points that the Applicant received during the study of the discipline (practical, seminar, laboratory classes, etc.). The obtained value of the average traditional assessment is converted into points according to the scale of conversion of traditional assessments into rating points. The maximum number of points is 200.

Matching grades on a 200-point scale, a 4-point (traditional) scale, and ECTS scale

On a 200-point scale	Rating on a 4-point scale
180–200	Excellent
140–179	Good
120–139	Satisfactory
0–119	Unsatisfactory

On a 200-point scale	ECTS evaluation
192–200	A
172–191	B
148–171	C
128–147	D
120–127	E
0–119	F

Discipline/course policy

The student has the right to receive high-quality educational services, access to up-to-date scientific and educational information, qualified advice during the study of the discipline and mastering practical skills. The policy of the department in the provision of Educational Services is student-centered, based on the regulatory documents of the Ministry of Education and the Ministry of Health of Ukraine, the Charter of the EMU and the procedure for providing educational services regulated by the regulation on the organization of the educational process in the EMU and the principles of academic integrity.

Compliance with the EMU schedule, safety precautions in the classroom.

Requirements for preparing for practical classes.

Students should arrive at classes on time, without being late. A student who is more than 10 minutes late for classes is not allowed in and must work it out in accordance with the established procedure. During practical classes, the student must wear a work uniform (medical gown, cap). Students who do not have a work uniform are not allowed to attend classes. The student must follow the safety rules during practical classes and while staying in the Department's premises. When discussing theoretical issues, students should demonstrate tolerance, politeness and respect for their colleagues and the teacher; when performing practical tasks, the workplace should be kept in order and cleaned after completing practical work.

Use of mobile phones and other electronic devices. The use of mobile phones and other electronic devices in the classroom is not allowed, only during Distance Learning, provided that it is technically necessary.

Academic integrity. When studying the discipline, the student should be guided by the following regulations: on academic integrity of EMU ([regulation of EMU](#)). In case of violation of the regulations of academic integrity during the current and final controls, the student receives a grade of "2" and must work it out to the teacher in accordance with the established procedure.

Regulation on control measures in EMU ([Regulation of EMU](#)).

Missed classes should be reworked in accordance with the procedure established in the regulations on control measures in the EMU ([regulation of EMU](#)) during the time determined by the work schedule (Department of Internal Medicine) to the teacher on duty. To work out a missed lesson the student must pass a test and answer in writing or verbally the question on the topic of the lesson.

Procedure for admission to the final control in the discipline is given in the regulations on control measures and regulations on the organization of the educational process in the EMU ([regulation of EMU](#)) and regulations on control measures in the TNM DMI ([regulation of EMU](#)). Students who do not have missed not worked out practical classes and lectures and have received an average traditional grade of at least "3" are allowed to participate in the final control.

Additional individual points. Points are awarded subject to the mandatory participation of the head, head teacher and teacher. These points are encouraging and are added once

to the total score of the current academic performance and the result of passing the comprehensive exam. Their total number for one student should not exceed 10, and the final amount of points for an academic discipline should not exceed 200 points.

Individual tasks include:

- 1) writing essays and creating multimedia presentations with reports at meetings of the student scientific group of the department – 3 points;
- 2) participation in the creation of tables, graphological structure, posters on the topics of practical classes – 2 points;
- 3) participation in the student competition in the discipline at the First Stage – 1 point;
- 4) participation/prize-winner of the All-Ukrainian student competition in the discipline - 7/10 points;
- 5) author or co-author of abstracts/article – 2/5 points;
- 6) author or co-author of an oral/information stand report at a scientific conference – 6/3 points;
- 7) author of a student scientific paper accepted for participation or awarded by a diploma of I-III degree in the All – Ukrainian competition of student scientific papers at Stage II - 8 (participation) or 10 (diploma) points.

Resolving conflict issues. If there are misunderstandings and complaints against the teacher due to quality of educational services provided, knowledge assessment, and other conflict situations, the student must first report his/her claims to the teacher. If the conflict issue is not resolved, the student has the right to submit an appeal to the head of the department in accordance with the regulations on consideration of applications from applicants for higher education in EMU ([regulation of EMU](#)), Regulations on consideration of applications, complaints, and proposals of students in EMU ([regulation of EMU](#)), Regulations on meeting the requirements of the organization of the educational process ([regulation of EMU](#)), Regulation on the appeal of the results of the final control of knowledge of applicants for higher education in EMU ([regulation of EMU](#)), Regulations on safe educational environment in EMU ([regulation of EMU](#)).

Policy in the context of distance learning. The procedure for distance learning is regulated by [regulation of EMU](#). The main training platforms for conducting training sessions are Microsoft Teams, Zoom. The procedure for conducting practical classes and lectures, working out and consultations during Distance Learning is published on the Department's Web page Department of Internal Medicine.

Feedback from the teacher is provided directly during the lesson and/or consultation, and is also possible via email (in case of force majeure) during working hours.

1. Training resources

Educational and methodological support of the discipline is published on the website of the Department (Department of Internal Medicine). Consultations are held according to the consultation schedule.

2. Schedule and distribution of groups by teacher are published on the Department's Web page (Department of Internal Medicine).

3. Questions for intermediate and final control of the discipline are published on the Department's Web page (Department of Internal Medicine).

Questions for summary control

- Management of a patient with arterial hypertension: algorithms and standards of diagnosis and treatment
- Management of a patient with chest pain: algorithms and standards diagnostics and treatment
- Management of a patient with heart rhythm disorders: algorithms and standards of diagnosis and treatment
- Management of a patient with impaired cardiac conduction: algorithms and standards of diagnosis and treatment
- Management of a patient with shortness of breath: algorithms and standards diagnostics and treatment
- Management of a patient with edema syndrome: algorithms and standards of diagnosis and treatment
- Management of a patient with pulmonary hypertension: algorithms and standards of diagnosis and treatment
- Management of a patient with heart murmur: algorithms and standards diagnostics and treatment
- Management of a patient with chronic heart failure: algorithms and standards of diagnosis and treatment
- Management of a patient with pain in the back and limbs: algorithms and standards of diagnosis and treatment
- Management of a patient with joint syndrome: algorithms and standards of diagnosis and treatment
- Management of a patient with purpura: diagnostic algorithms and standards and treatment
- Management of a patient with fever: algorithms and standards diagnostics and treatment
- Management of a patient with weight loss: algorithms and standards diagnostics and treatment
- Management of a patient with dysphagia and heartburn: algorithms and standards diagnostics and treatment
- Management of a patient with dyspepsia: algorithms and standards diagnostics and treatment
- Management of a patient with abdominal pain: algorithms and standards diagnostics and treatment
- Management of a patient with chronic diarrhea: algorithms and standards diagnostics and treatment
- Management of a patient with constipation: algorithms and standards diagnostics and treatment
- Management of a patient with jaundice: algorithms and standards diagnostics and treatment
- Management of a patient with hepatomegaly and hepatosplenomegaly syndrome: algorithms and standards of diagnosis and treatment
- Management of a patient with portal hypertension and ascites: algorithms and standards of diagnosis and treatment
- Management of a patient with a pulmonary infiltrate: algorithms and standards of diagnosis and treatment
- Management of a patient with chronic cough: algorithms and standards diagnostics and treatment
- Management of a patient with broncho-obstructive syndrome: algorithms and standards of diagnosis and treatment
- Management of a patient with cyanosis: diagnostic algorithms and standards

and treatment

- Management of a patient with hemoptysis: algorithms and standards

diagnostics and treatment

- Management of a patient with pleural effusion: algorithms and standards

diagnostics and treatment

- Management of a patient with anemia: algorithms and standards and treatment

- Management of a patient with bleeding: algorithms and standards

diagnostics and treatment

- Management of a patient with leukocytosis: algorithms and standards

diagnostics and treatment

- Management of a patient with lymphadenopathy: algorithms and standards

diagnostics and treatment

- Management of a patient with urinary syndrome: algorithms and standards

diagnostics and treatment

- Management of a patient with nephrotic syndrome: algorithms and

standards of diagnosis and treatment

- Management of a patient with chronic kidney disease: algorithms and

standards of diagnosis and treatment

- Diabetes mellitus, classification, etiology, pathogenesis, clinic,

diagnostics: algorithms and protocols of diagnostics

- Type 1 and type 2 diabetes, modern methods of therapy: algorithms

and treatment protocols

- Acute and chronic complications of diabetes. Algorithms and

protocols for the treatment of hypoglycemic coma, diabetic ketoacidosis

coma, diabetic neuropathy, diabetic nephropathy, retinopathy, syndrome

diabetic foot

- Iodine deficiency diseases of the thyroid gland. Signs of endemic

areas according to WHO. Clinic, diagnosis, prevention and treatment

- Hypothyroidism and thyroiditis. Classification, diagnosis, clinic,

treatment: algorithms for diagnosis and treatment of iodine deficiency diseases,

hypothyroidism, thyroiditis

- Thyrotoxicosis. Clinical forms. Diagnosis, treatment

- Cancer of the thyroid gland. Classification, clinic, diagnosis, treatment

- Algorithms for diagnosis and treatment of thyrotoxicosis, cancer

thyroid gland

- Etiology and pathogenesis of the main comatose states in

endocrinological practice

- Diabetic (ketoacidotic) coma: definition, provoking

factors, clinic, diagnosis, differential diagnosis

- Treatment of ketoacidotic coma (pre-hospital stage,

intensive care unit): laboratory control, rehydration, insulin therapy, correction of electrolyte

disturbances and metabolic acidosis

- Hypoglycemic coma and hypoglycemia: main causes, provoking

factors, classification of hypoglycemia by degree of severity, diagnosis. Treatment of hypoglycemia

depending on the degree of severity

- The concept of hyperosmolar and lacticidotic coma in diabetes

- Protocol for providing medical care to diabetic patients

commas.

- Thyrotoxic crisis. Etiology and pathogenesis, clinic, diagnosis, differential diagnosis, treatment

- Addisonian crisis. Etiology and pathogenesis, clinic, diagnosis, differential diagnosis, treatment

- Tactics when stopping blood circulation and breathing

- Standards of diagnosis and emergency treatment of patients with

hypertensive crisis at the pre-hospital and hospital stages

- Standards of diagnosis and emergency treatment of patients with acute coronary syndrome at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with thromboembolism of the pulmonary artery at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with acute heart failure at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with shock at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with paroxysmal heart rhythm disturbances in the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with acute respiratory failure in pre-hospital and hospital settings
- Standards of diagnosis and emergency treatment of patients with melena and hematemesis at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with oligoanuria at the pre-hospital and hospital stages
- Standards of diagnosis and emergency treatment of patients with coma (including with hypoglycemic, ketoacidotic, hepatic and uremic) on pre-hospital and hospital stages
- Protocols for diagnosis and treatment of patients with thyrotoxicosis crisis at the pre-hospital and hospital stages
- Protocols for diagnosis and treatment of patients with Addisonian crisis at the pre-hospital and hospital stages
- Primary forms of tuberculosis
- Secondary forms of tuberculosis
- Extrapulmonary forms of tuberculosis: bone and lymphatic tuberculosis nodes, kidneys, meninges, etc.
- Monoresistant, polyresistant, multiresistant tuberculosis (MDR-TB) and extensively drug-resistant tuberculosis (DR-TB)
- Tuberculosis combined with HIV infection
- Pulmonary bleeding
- Spontaneous pneumothorax
- Management of a patient with acute cerebrovascular accident: algorithms and standards of diagnosis and treatment of transient ischemic attack, acute ischemic and hemorrhagic strokes
- Management of a patient with status epilepticus: algorithms and standards of diagnosis and treatment
- Management of a patient with infectious diseases of the central and peripheral nervous system: algorithms and standards of diagnosis and treatment of meningitis, encephalitis, myelitis, poliomyelitis, neuroborreliosis
- Management of a patient with infectious and allergic diseases nervous system: algorithms and standards for diagnosis and treatment of the syndrome Guillain-Barre, post-diphtheria polyneuropathy, chronic demyelinating Polyneuropathy
- Management of a patient with headache and prosopalgia: algorithms and standards of diagnosis and treatment
- Management of the patient with vertebral and non-vertebral pain syndromes: algorithms and standards of diagnosis and treatment
- Differential diagnosis of arterial hypertension on the basis

clinical, laboratory and instrumental examination

- Differential diagnosis in heart rhythm disorders on
based on clinical and instrumental examination
- Differential diagnosis of cardiac conduction disturbances based on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of shortness of breath based on clinical,
laboratory and instrumental examination
- Differential diagnosis of chest pain at the base
clinical, laboratory and instrumental examination
- Differential diagnosis of edematous syndrome on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of pulmonary hypertension based on
clinical, laboratory and instrumental examination
- Differential diagnosis of heart murmur based on clinical,
laboratory and instrumental examination
- Differential diagnosis of pain in the back and limbs at the base
clinical, laboratory and instrumental examination
- Differential diagnosis of joint syndrome on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of purpura based on clinical,
laboratory and instrumental examination
- Differential diagnosis of dysphagia and heartburn based on clinical,
laboratory and instrumental examination
- Differential diagnosis of dyspepsia based on clinical,
laboratory and instrumental examination
- Differential diagnosis of abdominal pain based on clinical,
laboratory and instrumental examination
- Differential diagnosis of chronic diarrhea based on clinical,
laboratory and instrumental examination
- Differential diagnosis of constipation based on clinical,
laboratory and instrumental examination
- Differential diagnosis of jaundice based on clinical,
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- Differential diagnosis of pulmonary infiltrate on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of portal hypertension on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of chronic cough based on clinical,
laboratory and instrumental examination
- Differential diagnosis of broncho-obstructive syndrome on
on the basis of clinical, laboratory and instrumental examination
- Differential diagnosis of cyanosis based on clinical,
laboratory and instrumental examination
- Differential diagnosis of hemoptysis based on clinical,
laboratory and instrumental examination
- Differential diagnosis of pleural effusion on the basis
clinical, laboratory and instrumental examination
- Differential diagnosis of anemia based on clinical,
laboratory and instrumental examination
- Differential diagnosis of lymphadenopathy and leukocytosis based on
clinical, laboratory and instrumental examination
- Differential diagnosis of leukocytosis based on clinical,

laboratory and instrumental examination

- Differential diagnosis of urinary syndrome based on clinical, laboratory and instrumental examination
- Differential diagnosis of nephrotic syndrome on the basis clinical, laboratory and instrumental examination
- Differential diagnosis of chronic kidney disease on the basis clinical, laboratory and instrumental examination

Recommended Literature

Basic:

1. Perederii V. G., Tkach S. M. Basics of internal medicine. T.1. Textbook for III-IV r.: Recommended by the Ministry of Health: 2018/ 640 p.
2. Perederii V. G., Tkach S. M. Fundamentals of internal medicine. T.2. Textbook for VMNH IV yr.a.: Recommended by the Ministry of Health: 2018/ 784 p.
3. Perederii V. G., Tkach S. M. Fundamentals of internal medicine. T.3. Textbook for VMNH IV yr.a.: Recommended by the Ministry of Health: 2018/ 1006 p.
4. Steuara G. Ralston, Ian D. Penman and others. Medicine according to Davidson: principles and practice: trans. 23rd Eng. ed.: in 3 vol. — vol. 1: Education. manual for students honey. ZVO, intern doctors, masters — K., 2020. — XXII, 258 p.
5. Stuart G. Ralston, Ian D. Penman. Medicine according to Davidson: principles and practice: trans. 23rd Eng. ed.: in 3 vol. — vol. 2: Education. manual for students honey. ZVO, intern doctors, masters. — K., 2021. — XXII, 778 p.
6. Medicine according to Davidson: principles and practice: 23rd edition: in 3 volumes. Volume 3 / edited by By Stuart G. Ralston, Ian D. Penman, Mark W.J. Stracken, Richard P. Hobson: Education. manual for students honey. ZVO, intern doctors, masters. — K.: VSV "Medicine", 2021. — XXII, 642 p.
7. Perederii V.G. Practicum in internal medicine. Module 1. Gastroenterology. Study guide for VMNH III-IV yr.a.: Recommended by the Ministry of Health: 2009/ 240 p.
8. Kovalova O.M., Lisovyi V.M. Patient care: Practice: Textbook for med. University of the III-IV year — 3rd ed., ed. Approved by the Ministry of Health, Recommended by the Ministry of Health - K., 2015. - 488 p.
9. Bazhora Y.I. Clinical Immunology and Allergology=Clinical immunology and allergology. — 3rd edition. Textbook for VMNH IV yr.a.: Approved by the Ministry of Education and Culture: 2020/ 272 p.
10. Pukhlyk B. M. Allergology. Study guide for the 3rd-4th years of the Medical School of the Russian Academy of Medical Sciences: Recommended by the Central Committee of the Ministry of Health: 2004/ 240 p.
11. John R. Hampton. Basics of ECG = The ECG Made Easy: trans. 9th Eng. ed.: Education manual for students honey. ZVO, doctors, cardiologists / John Hampton and Joana Hamp — K., 2020. — XIV, 234 p., bilingual. kind. (Ukrainian, English), paperback
12. Kapustnyk V.A. Occupational diseases: Textbook for med. University of the IV R.A. — 5th type. processing and additional Approved by MES — K., 2017. — 536 p. + 4 s. color incl., TV fell
13. Kapustnyk V.A., Kostyuk I. F. Occupational Diseases: Textbook for Med. universities, institutes, acad. — 2nd edition. Approved by the Ministry of Education, Culture, Sports, Science and Technology of K., 2018.— 496 p.
14. Lapovets L.E. Clinical laboratory diagnostics: Textbook for students. honey. ZVO, intern doctors, laboratory specialists. diagnostics. — 2nd ed., pp. Recommended by the academic council of LNMU named after Danyla Halytskyi — K., 2021. — 472 p.

Additional:

1. Anemia is a comorbid condition: monograph / [G. V. Dzyak, T. O. Pertseva, V. A. Potabashniy and others]. - Dnipropetrovsk: IMA-press, 2013. - 268 p.

2. Algorithms of diagnostic and treatment skills and abilities in internal diseases for a general (family) practitioner: manual / [V. I. Kryvenko, S. P. Pakhomova, V. G. Yermeev, and others]. – Zaporizhzhia: ZDMU, 2012. – 359 p.
3. Clinical nephrology / under the editorship. Acad. Pyrig L.A., Romanenko A.M., Dyadyk O.I. et al.: K: Health, 2004. - 528 p.

Information resources:

<http://www.moz.gov.ua/>

<http://ginasthma.org/2017-gina-report-global-strategy-for-asthma-management-and-prevention>

<http://emedicine.medscape.com>

<http://meded.ucsd.edu/clinicalmed>

<http://www.gastro.org/>

<http://www.escardio.org>

<http://goldcopd.org/gold-reports-2017/>