

DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department: Propaedeutics of Internal Medicine

**APPROVED**

First Vice-Rector on  
Scientific and Pedagogical Work  
Associate Professor Iryna  
SOLONYNKO



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2023 y.

**DISCIPLINE PROGRAM**

**OC-20“Propaedeutics of internal medicine”**

**Second (master's) level of higher education**

**Field of knowledge 22 “Healthcare”**

**Specialty 222 "Medicine"**

**Faculty, year: Medical, 3<sup>rd</sup> year**

Discussed and approved  
at the educational-methodical meeting of the  
Department of Propaedeutics of internal medicine  
Minutes № 8 dated “19” April 2023  
Head of the department  
Prof. Roman Dutka



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Approved by the  
Profiled Methodical Board on Therapeutic  
Disciplines  
Minutes № 3 dated “4”\_May\_2023 y.  
Head of the Board  
Prof. O. M. Radchenko

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The discipline program “Propaedeutics to internal medicine” was developed and imported at the Department of Propaedeutics of Internal Medicine of DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY for 3<sup>rd</sup> year students of Medical faculty by the Specialty 222 "Medicine".

**Changes and additions to the Working Program of the academic discipline  
"Propaedeutics to internal medicine" for 2023-2024**

№	Content changes (additions)	Date and No. of the minutes of the department meeting	Notes
1.	Made changes to the thematic plan of lectures and self work of students due to the change in the number of lecture hours and hours allocated for self work of students, in accordance with the order of the Rector of the University № 881-c from 15.03.2022.	17. 03.2022 y., Minutes №13	Approved by profiled methodical board on therapeutic disciplines, minutes №2 dated 29 March 2022.
2.	The last changes were made in September 2020 in connection with the education of students in a pandemic of coronavirus infection (Covid-19)	31.08.2020 Minutes №1, 01.09.2020 Minutes №275	Approved by profiled methodical board on therapeutic disciplines, minutes №1 dated 10 September 2020.
3.	Changes were made to the thematic plan for self work of students due to the order of the rector "On the implementation of the Action Plan of the National Strategy to create a barrier-free viewing area in Ukraine for the period until 2030."	19.04.2023 y., Minutes № 8	Approved by profiled methodical board on therapeutic disciplines, minutes № 3 dated «04» May 2023.

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The discipline "propaedeutics of internal medicine" is a subject that studies what a doctor should start with when examining a patient in an internal medicine clinic, ie the introductory provisions and the beginning of the acquisition of clinical thinking. Translated into Ukrainian, "Pro" is a preface, introduction, "paideuo" is

to teach. Propaedeutics of internal medicine consists of two sections. The first section: subjective and objective examination of the patient. Complaints and anamnesis are subjective. The objective is divided into the main objective features, when the doctor directly examines the patient, and auxiliary, when there are laboratory and instrumental means between the patient and the doctor. The second section: on the basis of the revealed changes (symptoms which are united by the general pathogenesis in syndromes), the conclusion which is called the diagnosis is formed.

The main goal of the teachers of the Department of Propaedeutics of Internal Discipline is to teach students the research methods necessary for the recognition (diagnosis) of diseases of internal organs. Students must learn to examine the patient independently using certain methods and identify signs or symptoms of disease (symptomatology or semiotics), group the signs of the disease identified during the examination into pathogenetically related syndromes, which is the basis for diagnosis.

At the Department of Propaedeutics of Internal Medicine, students get acquainted with the basics (principles) of treatment of internal diseases that occur most often.

Thus, at the department students take a course in the diagnosis of internal diseases, the main purpose of which is to study the methods of examination of patients, as well as semiotics and syndromes of diseases and the basics of their treatment.

Structure of the discipline	Number of credits, hours, including				Year of study, semester	Type of control
	Together	Classroom		SWS		
		lectures (hours)	practical classes (h.)			
<b>Name of the discipline: propaedeutic to internal medicine</b>	<b>6 credits / 180 h.</b>	<b>20</b>	<b>70</b>	<b>90</b>	<b>3 course (5-6 semester)</b>	<b>Differentiated credit</b>
<b>By semesters</b>						
<i>1 semester</i>	<b>2,6 credits / 78 h.</b>	<b>8</b>	<b>30</b>	<b>40</b>	<b>5 semester</b>	<b>Credit</b>
<i>2 semester</i>	<b>3,4 credits / 102 год.</b>	<b>12</b>	<b>40</b>	<b>50</b>	<b>6 semester</b>	<b>Differentiated credit</b>

6 ECTS credits / 180 hours are assigned for the study of the academic discipline.

The subject of study of the discipline "propaedeutics of internal medicine" is a set of theoretical and practical issues aimed at mastering the basic methods of examination of the patient in the clinic of internal medicine.

Interdisciplinary connections: normal anatomy; normal physiology; topographic anatomy; pathological anatomy; pathological physiology; medical psychology.

The purpose and objectives of the discipline:

The purpose of teaching the discipline "propaedeutics of internal medicine" is to form in the student the basics of clinical thinking and the acquisition of professional skills in examining the patient and assessing the main manifestations of diseases of internal organs in accordance with the principles of medical ethics and deontology.

The main tasks of studying the discipline "propaedeutics of internal medicine" are:

- mastering by the student of theoretical knowledge necessary for detection of human diseases.
- mastering practical techniques and methods of objective and laboratory-instrumental examination of patients.
- mastering the general methodological approaches of clinical examination of the patient.
- diagnosis of certain internal human diseases with their typical manifestations.
- formation of students' moral, ethical and deontological qualities in professional communication with the patient.

Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education seekers, formulated in terms of learning outcomes in the Standard of Higher Education).

In accordance with the requirements of the Standard of Higher Education, the discipline ensures the acquisition of competencies by students.

- *General* (General Competencies – GC):

GC1 - Ability to abstract thinking, analysis and synthesis.

GC2 - Ability to learn and master modern knowledge.

GC3 - Ability to apply knowledge in practical situations.

GC4 - Knowledge and understanding of the subject area and understanding of professional activity.

GC5 - Ability to adapt and act in a new situation.

GC6 - Ability to make informed decisions

GC7 - Ability to work in a team.

GC8 - Ability to interpersonal interaction.

GC9 - Ability to communicate in a foreign language.

GC10 - Ability to use information and communication technologies.

GC11 - Ability to search, process and analyze information from various sources.

GC12 - Definiteness and perseverance in terms of tasks and responsibilities.

GC13 - Awareness of equal opportunities and gender issues.

GC14 - The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.

GC15 - Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, techniques and technologies. active recreation and a healthy lifestyle.

- *Special* (Special Competencies – SC):

SC1 - Ability to collect medical information about the patient and analyze the data obtained.

SC2 - Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

SC3 - Ability to establish a preliminary and clinical diagnosis of the disease.

SC4 - Ability to determine the required mode of work and rest in the treatment of diseases

SC5 - Ability to determine the nature of nutrition in the treatment of diseases.

SC7 - Ability to diagnose emergencies.

SC8 - Ability to determine tactics and provide first aid.

SC23 - Ability to keep medical records, including electronic forms.

SC24 - Adherence to ethical principles when working with patients, laboratory animals.

SC25 - Adherence to professional and academic integrity, be responsible for the accuracy of scientific results.

Detailing of competencies according to Descriptors of the National Qualifications Framework (NQF) in the form of "Competence Matrix".

### COMPETENCE MATRIX

№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
1	2	3	4	5	6
GC 1	Ability to abstract thinking, analysis and synthesis.	Know the methods of analysis, synthesis and further modern learning.	Be able to analyze information, make informed decisions, be able to acquire modern knowledge.	Establish appropriate links for achieving goals.	Be responsible for the timely acquisition of modern knowledge
GC 2	Ability to learn and master modern knowledge.				
GC 3	Ability to apply knowledge in practical situations.	Have specialized conceptual knowledge acquired in the learning process.	Be able to solve complex problems and problems that arise in professional activities.	Clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists.	To be responsible for decision making in difficult conditions
GC 4	Knowledge and understanding of	Have deep knowledge of	Be able to carry out professional	Ability to form effectively a	To be responsible for

	the subject area and understanding of professional activity.	the structure of professional activity.	activities that require renewal and integration knowledge.	communication strategy in professional activities.	professional development, ability to further professional training with a high level autonomy.
GC 5	Ability to adapt and act in a new situation.	Know the types and methods of adaptation, principles of action in a new situation.	Be able apply means of self-regulation, be able to adapt to new situations (circumstances) of life and activity.	Make the right connections to achieve the result.	Be responsible in a timely manner use of self-regulation methods
GC 6	Ability to make informed decisions	Know the tactics and strategies of communication, laws and ways of communication behavior.	Be able to make an informed decision, choose ways and communication strategies to ensure effective teamwork.	Be able to make an informed decision, choose ways and communication strategies to ensure effective teamwork.	To be responsible for the choice and tactics of communication.
GC 7	Ability to work in a team.				
GC 8	Interpersonal skills.				
GC 9	Ability to communicate in a foreign language.	Have a good knowledge of a foreign language	Be able to apply knowledge of a foreign language, both orally and in writing	Use in professional and business communication and preparation of documents in a foreign language.	To be responsible for fluency in a foreign language, for development professional knowledge.
GC 10	Ability to use information and communication technologies.	Have deep knowledge in the field of information and communication technologies, used in professional activities.	Be able to use information and communication technologies in a professional field that needs updating and integration of knowledge.	Use information and communication technologies in professional activities.	Be responsible for the development of professional knowledge and skills.
GC 11	Ability to search, process and analyze information from various sources.	Know the ways and means of finding, processing and analyzing information obtained from various sources.	Be able determine the purpose and objectives to be persistent and conscientious when search, processing and analysis of information obtained from various sources.	Establish interpersonal connections for effective search, processing and analysis of information obtained from various sources.	To be responsible for quality search, processing and analysis of information from various sources.
GC 12	Definiteness and perseverance in terms of tasks and responsibilities.	Know the responsibilities and ways to accomplish the tasks.	Be able determine the purpose and objectives to be persistent and conscientious when	Establish interpersonal connections for effective performance of tasks and responsibilities.	Responsible for quality performance of tasks.

			performance of duties.		
GC 13	Awareness of equal opportunities and gender issues.	Know about equal opportunities and gender issues.	Be able to use knowledge about equal gender opportunities in professional activities.	Ability to establish interpersonal relationships using knowledge of equal gender opportunities in teamwork.	To be responsible for the observance of equal gender opportunities in their professional activities.
GC 14	The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.	Know your rights and responsibilities as a member of society.	Aware of the values of civil (free democratic) society.	The ability to exercise one's rights and responsibilities as a member of society for its sustainable development.	To be responsible for the observance of the rule of law, human and civil rights and freedoms in Ukraine.
GC 15	Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, techniques and technologies, active recreation and a healthy lifestyle.	Have a deep knowledge of moral, cultural, scientific values and achievements of society, understand the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and engineering.	Understand the importance of moral, cultural, scientific values, knowledge of a healthy lifestyle for the development of society, technology and technology	Ability to implement moral, cultural, scientific values, knowledge of a healthy lifestyle in their professional activities.	To be responsible for observance of moral, cultural, scientific values, a healthy way of life in the professional activity.
SC 1	Ability to collect medical information about the patient and analyze the data obtained.	Know the features of questioning patients in the therapeutic department of the hospital: the collection of primary and secondary complaints, medical history and life	Be able to collect patient complaints, anamnesis morbi, anamnesis vitae in the therapeutic department of the hospital	The ability to effectively shape a communication strategy in communication with patients and their relatives.	Carry responsibility for the choice and tactics of communication. Responsible for using the results of the interview with patient according to the standard scheme of

					questioning the patient.
SC 2	Ability to determine the required list of laboratory and instrumental studies and evaluate their results.	Know the list of necessary laboratory and instrumental examinations.	Be able to schedule the necessary laboratory and instrumental examinations depending on the previous diagnosis.	Ability to evaluate the results of laboratory and instrumental studies.	Be responsible for the correct interpretation of the results of laboratory and instrumental research.
SC 3	Ability to establish a preliminary and clinical diagnosis of the disease.	Know the principles of preliminary and clinical diagnosis of the disease.	Be able to collect anamnesis, conduct a general and detailed examination of the patient, to appoint the necessary laboratory and instrumental studies to establish a preliminary and clinical diagnosis of the disease.	Ability to correctly interpret the data obtained by questioning, objective examination of the patient and the results of laboratory and instrumental studies to establish a preliminary and clinical diagnosis of the disease.	Be responsible for the correct formulation of the preliminary and clinical diagnosis.
SC 4	Ability to determine the required mode of work and rest in the treatment of diseases.	Know the basic rules of editing and rest in the treatment of diseases.	Be able to determine correctly the mode of work and rest in the treatment of diseases.	Establish interpersonal connections for effective observance by the patient of the appointed mode of work and rest at treatment of a disease.	Responsible for the appointment of the necessary mode of work and rest in the treatment of diseases.
SC 5	Ability to determine the nature of nutrition in the treatment of diseases.	Know the basic rules of nutrition in the treatment of diseases.	Be able to correctly prescribe the necessary type of nutrition in the treatment of diseases.	The ability to effectively shape a communication strategy in communication with patients and their relatives in the case of prescribing a certain type of diet in the treatment of diseases.	Responsible for the correctness and effectiveness of the appointment of a certain type of food in the treatment of diseases.
SC 7	Ability to diagnose emergencies.	Know the basic emergencies in the clinic of internal medicine.	Be able to diagnose correctly emergencies	Ability to communicate effectively with relatives of patients or bystanders in the event of an emergency for a correct diagnosis	Responsible for the correct diagnosis of an emergency.

SC 8	Ability to determine tactics and provide first aid.	Know the basic principles of first aid.	Be able to conduct properly resuscitation and provide first aid.	Ability to form effectively a communication strategy in the provision of first aid.	Responsible for the correct definition of tactics and first aid.
SC 23	Ability to keep medical records, including electronic forms.	Know the basic types of medical records in the hospital, including electronic forms.	Be able to complete and maintain medical records for an inpatient, using standard technology, based on regulatory documents.	Establish interpersonal connections for effective maintenance of medical records, including electronic forms.	Responsible for quality filling in and maintaining medical records, including electronic forms.
SC 24	Adherence to ethical principles when working with patients, laboratory animals.	Know the basic ethical norms and principles of professional activity of a doctor.	Be able to implement basic ethical norms and principles when working with patients, laboratory animals.	Ability to effectively form a communication strategy when working with the patient in compliance with ethical norms and principles.	Responsible for compliance with ethical norms and principles when working with patients, laboratory animals.
SC 25	Adherence to professional and academic integrity, be responsible for the accuracy of scientific results.	Know the basic rules of professional and academic integrity.	Be able to implement the rules of professional and academic integrity in the performance of their professional activities and research work.	Ability to formulate effectively a communication strategy based on professional and academic integrity.	To be responsible for the observance of professional and academic integrity, for the reliability of the obtained scientific results.

PRS1	Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.
PRS 2	Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care.
PRS 3	Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for research, critical understanding of problems in the field of medicine and related interdisciplinary problems.
PRS 4	Identify and identify the leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease (according to list 2).
PRS 5	Collect complaints, life history and disease, assess the psychomotor and physical development of the patient, the condition of organs and systems of the body, based on the results of laboratory and instrumental studies to assess information about the diagnosis (list 4), taking into account the patient's age.
PRS 6	Establish a final clinical diagnosis by making an informed decision and analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis, adhering to the relevant ethical and legal norms, under the supervision of a physician-manager in a health care institution (according to the list 2).



PRS 7	Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) (according to list 4), patients with diseases of organs and systems of the body for differential diagnosis of diseases (according to list 2).
PRS 8	Determine the main clinical syndrome or the severity of the victim's condition (according to list 3) by making an informed decision and assessing the person's condition under any circumstances (in a health care facility, outside it), including in conditions of emergency and hostilities, in the field, in conditions of lack of information and limited time.
PRS 10	Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.
PRS 14	Determine tactics and provide emergency medical care (according to list 3) for a limited time in accordance with existing clinical protocols and treatment standards.
PRS 21	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.
PRS 24	Organize the necessary level of individual safety (own and persons cared for) in case of typical dangerous situations in the individual field of activity.
PRS 25	Clearly and unambiguously communicate their knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists.
PRS 27	Communicate fluently in the Ukrainian and English languages, both orally and in writing, to discuss professional activities, research and projects.

### STRUCTURE OF THE DISCIPLINE

Topic	Lectures	Practical classes	SWS	Individual work
1	2	3	4	5
<b><i>The main tasks of internal medicine. Rules for questioning and examination of the patient.</i></b>				
1. Topic 1. Scheme of history of the disease. Rules of questioning the patient.	1	2	3	-
2. Topic 2. General and detailed patient examination. Specificity of the examination of seriously ill patients with limited life expectancy.		2	2	
<b><i>Physical and laboratory-instrumental methods of studying the state of the respiratory system.</i></b>				
3. Topic 3. The main complaints and inspection of patients with respiratory diseases. Palpation of the chest.	1	2	1	
4. Topic 4. Percussion of the lungs.		2	2	
5. Topic 5. Auscultation of the lungs. Bronchophonia.		2	1	
6. Topic 6. Laboratory and instrumental methods of examination of respiratory organs. <b>Intermediate control of knowledge on the examination of patients with pathology of the respiratory system.</b>		2	5	1
<b><i>Physical and instrumental methods of examination of the cardiovascular system.</i></b>				
7. Topic 7. Questioning and inspection of patients with cardiovascular disease. Palpation of the heart area. Percussion determination of boundaries of relative and absolute cardiac dullness.	1	2	2	
8. Topic 8. Auscultation of the heart.		2	2	
9. Topic 9. Study of peripheral pulse and measurement of blood pressure.		2	4	

<b>Intermediate control of knowledge on the examination of patients with pathology of the cardiovascular system.</b>				
10. Topic 10. The method of registration and decryption ECG. ECG signs of atrial and ventricular hypertrophy.		2	2	1
11. Topic 11. Electrocardiographic examination of patients with disorders of automatism and excitability.		2	3	
12. Topic 12. ECG - signs of conduction abnormalities <b>Intermediate knowledge control on the basics of ECG-diagnostics.</b>		2	4	
<b><i>Basic methods of examination the organs of the digestive and urinary system .</i></b>				
13. Topic 13. Questioning and inspection of patients with diseases of the digestive system. Palpation of the abdomen.		2	2	
14. Topic 14. Laboratory and instrumental methods of examination in pathology of the esophagus, stomach, duodenum, small and large intestines.	1	2	8	
15. Topic 15. Examination of the hepatobiliary system and the pancreas. <b>Intermediate control of knowledge on the examination of patients with pathology of the digestive system..</b>		2	4	
<b>Type of control</b>				<b>Credit</b>
<b><i>The main symptoms and syndromes in respiratory diseases.</i></b>				
16. Topic 16. Syndromes of fluid (hydrothorax) and air (pneumothorax) in pleural cavity, emergency aid. Syndrome of cavity in the lungs.	2	2	1	
17. Topic 17. Syndrome of pulmonary tissue consolidation, bronchial obstruction and increased airiness of the pulmonary tissue. Emergency aid for a patient with attack of bronchial asthma.		2	1	
18. Topic 18. Syndromes of compression atelectasis, obstruction atelectasis and pulmonary insufficiency. <b>Intermediate control of knowledge from syndromes of respiratory system.</b>		2	2	
<b><i>The main symptoms and syndromes in diseases of the cardiovascular system.</i></b>				
19. Topic 19. Symptoms and syndromes in angina and myocardial infarction.	2	2	1	
20. Topic 20. Symptoms and syndromes in essential and symptomatic arterial hypertension. Hypertension crisis. Emergency aid.		2	1	
21. Topic 21. Mitral defects of heart (mitral valve disease): symptoms and syndromes based on clinical and instrumental methods of examination. Defects of tricuspid valve.		2	1	
22. Topic 22. Aortic defects of heart (aortic valve disease): main symptoms and syndromes based on clinical and instrumental methods of examinations.		2	1	
23. Topic 23. Syndrome of heart insufficiency (heart failure). Syndrome of acute and chronic vascular insufficiency (vascular			3	

failure). <b>Intermediate control of knowledge from syndromes of cardiovascular system.</b>				
<i>The main symptoms and syndromes in diseases of the digestive and urinary system.</i>				
24. Topic 24. Symptoms and syndromes in diseases of esophagus, stomach, duodenum, thin and thick intestines.	2	2	2	
25. Topic 25. Symptoms and syndromes in diseases of liver.		2	3	
26. Topic 26. Symptoms and syndromes in diseases of the gall bladder and pancreas.		2	2	
27. Topic 27. Symptoms and syndromes in diseases of kidneys. <b>Intermediate control of knowledge from syndromes of digestive and urinary systems.</b>	2	2	4	
<i>The main symptoms and syndromes in diseases of the blood system, the endocrine system. Pathology of connective tissue.</i>				
28. Topic 28. Examination of patients with pathology of endocrine system. Syndromes in diseases of the thyroid gland.	2	2	4	
29. Topic 29. Symptoms and syndromes in diseases of other glands of the internal secretion. Diabetes mellitus. Emergency aid in case of diabetic or hypoglycemic coma.	2	2	4	
30. Topic 30. Examination of blood formation (hematopoietic) system. Complete blood count.	1	2	1	
31. Topic 31. Symptoms and syndromes in anemias, hemoblastoses. <b>Intermediate control of knowledge from syndromes of endocrine and hematopoietic systems.</b>	2	2	4	
32. Topic 32. Methods of examination of patients with pathology of connective tissue. Syndromes of connective tissue damage.	1	2	2	
33. Topic 33. Protecting the history of the disease (case history of the patient).		2		2
34. Topic 34. Final class from methods of examination.		2		
35. <b>Topic 35. Differentiated credit (theoretical and practical parts).</b>		2		
<b>Together hours 180/6,0 credits ECTS</b>	<b>20</b>	<b>70</b>	<b>80</b>	
<b>Type of control</b>				<b>Differentiated credit</b>

#### 4. THEMATIC PLAN OF LECTURES

№	Topic	Number of hours
	<b>"The main methods of examination in the clinic of internal diseases" V semester (autumn)</b>	
1.	Propaedeutics of Internal Medicine as a subject. Examination of patients with respiratory system pathology.	2
2.	Examination of patients with pathology of the cardiovascular and digestive system.	2
3.	Examination of patients with pathology of the endocrine and urinary system.	2

4.	Examination of patients with pathology of blood formation (hematopoietic) system and with pathology of connective tissue.	2
<b>Together:</b>		<b>8</b>
<b>№</b>	<b>Topic</b>	<b>Number of hours</b>
	<b>«Symptoms and syndromes in diseases of the internal organs» VI semester (spring)</b>	
1.	Syndromes in respiratory pathology.	2
2.	Syndromes in diseases of the cardiovascular system.	2
3.	Syndromes in pathology of the digestive system.	2
4.	Syndromes in pathology of the urinary system.	2
5.	Syndromes in pathology of the endocrine system.	2
6.	Syndromes in pathology of hematopoietic organs and systemic connective tissue pathology.	2
<b>Together:</b>		<b>8 h.</b>

#### 5. THEMATIC PLAN OF PRACTICAL CLASSES

<b>№</b>	<b>Topic</b>	<b>Number of hours</b>
	<b>"The main methods of examination in the clinic of internal diseases" V semester (autumn)</b>	
1.	Scheme of history of the disease. Rules of questioning the patient.	2
2.	General and detailed patient examination. Specificity of the examination of seriously ill patients with limited life expectancy.	2
3.	The main complaints and inspection of patients with respiratory diseases. Palpation of the chest.	2
4.	Percussion of the lungs.	2
5.	Auscultation of the lungs. Bronchophonia.	2
6.	Laboratory and instrumental methods of examination of respiratory organs. <b>Intermediate control of knowledge on the examination of patients with pathology of the respiratory system.</b>	2
7.	Questioning and inspection of patients with cardiovascular disease. Palpation of the heart area. Percussion determination of boundaries of relative and absolute cardiac dullness.	2
8.	Auscultation of the heart.	2
9.	Study of peripheral pulse and measurement of blood pressure. <b>Intermediate control of knowledge on the examination of patients with pathology of the cardiovascular system.</b>	2
10.	The method of registration and decryption ECG. ECG signs of atrial and ventricular hypertrophy.	2
11.	Electrocardiographic examination of patients with disorders of automatism and excitability.	2
12.	ECG - signs of conduction abnormalities <b>Intermediate knowledge control on the basics of ECG-diagnostics.</b>	2
13.	Questioning and inspection of patients with diseases of the digestive system. Palpation of the abdomen.	2
14.	Laboratory and instrumental methods of examination in pathology of the esophagus, stomach, duodenum, small and large intestines.	2
15.	Examination of the hepatobiliary system and the pancreas. <b>Intermediate control of knowledge on the examination of patients with pathology of the digestive system.</b>	2
<b>Together:</b>		<b>30</b>
<b>№</b>	<b>Topic</b>	<b>Number of hours</b>

«Symptoms and syndromes in diseases of the internal organs» VI semester (spring)		2
1.	Syndromes of fluid (hydrothorax) and air (pneumothorax) in pleural cavity, emergency aid. Syndrome of cavity in the lungs.	2
2.	Syndrome of pulmonary tissue consolidation, bronchial obstruction and increased airiness of the pulmonary tissue. Emergency aid for a patient with attack of bronchial asthma.	2
3.	Syndromes of compression atelectasis, obstruction atelectasis and pulmonary insufficiency. <b>Intermediate control of knowledge from syndromes of respiratory system.</b>	2
4.	Symptoms and syndromes in angina and myocardial infarction.	2
5.	Symptoms and syndromes in essential and symptomatic arterial hypertension. Hypertension crisis. Emergency aid.	2
6.	Mitral defects of heart (mitral valve disease): symptoms and syndromes based on clinical and instrumental methods of examination. Defects of tricuspid valve.	2
7.	Aortic defects of heart (aortic valve disease): main symptoms and syndromes based on clinical and instrumental methods of examinations.	2
8.	Syndrome of heart insufficiency (heart failure). Syndrome of acute and chronic vascular insufficiency (vascular failure). <b>Intermediate control of knowledge from syndromes of cardiovascular system.</b>	2
9.	Symptoms and syndromes in diseases of esophagus, stomach, duodenum, thin and thick intestines.	2
10.	Symptoms and syndromes in diseases of liver.	2
11.	Symptoms and syndromes in diseases of the gall bladder and pancreas.	2
12.	Symptoms and syndromes in diseases of kidneys. <b>Intermediate control of knowledge from syndromes of digestive and urinary systems.</b>	2
13.	Examination of patients with pathology of endocrine system. Syndromes in diseases of the thyroid gland.	2
14.	Symptoms and syndromes in diseases of other glands of the internal secretion. Diabetes mellitus. Emergency aid in case of diabetic or hypoglycemic coma.	2
15.	Examination of blood formation (hematopoietic) system. Complete blood count.	2
16.	Symptoms and syndromes in anemias, hemoblastoses. <b>Intermediate control of knowledge from syndromes of endocrine and hematopoietic systems.</b>	2
17.	Methods of examination of patients with pathology of connective tissue. Syndromes of connective tissue damage.	2
18.	Protecting the history of the disease (case history of the patient).	2
19.	Final class from methods of examination.	
20.	Differentiated credit	2
<b>Together:</b>		<b>40</b>

## 6. THEMATIC PLAN OF SELF WORK OF STUDENTS

№ з/п	Title of topic (or content of work)	Number of hours	Type of control
<b>"The main methods of examination in the clinic of internal diseases"</b> <b>V semester (autumn)</b>			
1.	Preparation for practical classes - theoretical and skills training of methods of objective examination of a patient	24	Current control on practical classes
2.	Independent study of topics that are not included in the classroom lesson plan:		
	✓ Instrumental methods of examination of the respiratory system	3	
	✓ Instrumental methods of examination of the cardiovascular system	5	
3.	✓ Instrumental methods of examination of the digestive system.	5	
	Mastering the ability to analyze:		
	- results of the study of the function of external respiration	2	
	- data of electrocardiographic and phonocardiographic examinations	4	
	- results of intragastric pH-metry	1	
	- duodenal sounding data	1	

	- results of coprological examination of feces	1	
4.	Writing the history of the disease (anamnesic part)	4	
<b>Together:</b>		<b>40</b>	
<b>№</b>	<b>Title of topic (or content of work)</b>	<b>Number of hours</b>	<b>Type of control</b>
<b>«Symptoms and syndromes in diseases of the internal organs» IV semester (spring)</b>			
1.	Pre-classroom theoretical training for practical classes according to the plan of practical classes	20	Current control on practical classes
	Instrumental and laboratory methods of investigation of the gastrointestinal tract	2	
	• results of the study of gastric contents and duodenal intubation	1	
2.	Working on topics that are not taught at practical classes:		
	• Laboratory and ECG-diagnostics of myocardial infarction.	3	
	• Clinical and laboratory diagnostics of hemoblastosis. Hodgkin's lymphoma (lymphogranulomatosis) and non-Hodgkin's lymphomas.	2	
	• Hemorrhagic syndromes and pathology of blood coagulation system. Disseminated intravascular coagulation syndrome.	2	
	• The main symptoms and syndromes in diabetes mellitus. The main clinical manifestations of thyroid gland diseases.	2	
	• Diagnosis of diffuse connective tissue diseases (systemic lupus erythematosus, systemic scleroderma, dermatomyositis).	1	
	• Features of questioning and examination of patients with urticaria, angioneurotic edema, hemorrhagic vasculitis. Anaphylactic shock, principles of resuscitation.	1	
3.	Curation of patient with the writing of the history of the disease	2	
4.	Individual work:		
	• Conducting research on the function of external respiration of symptomatic patients, processing received data and reporting on the lesson.	1	
	• ECG registration, participation in conducting instrumental research in indicative patients with data processing and presentation at the lesson	1	
	• Carrying out examination of the patient and preparing a review of scientific literature on the case under investigation.	2	
<b>TOTAL:</b>		<b>40</b>	

**Individual tasks** (anamnesic part of medical history; medical history).

Anamnesic part of the medical history. Collection of anamnesis in the ward near the patient's bed (registration of the passport part, complaints, anamnesis of the disease, anamnesis of life). Written registration by students of the data collected during interrogation of the patient.

Medical history. Examination of patients with various diseases of the internal organs. Evaluation of anamnesis data and objective examination. Registration of educational history of the disease. Formulation of a preliminary diagnosis. The plan of laboratory and instrumental examinations and treatment of the patient. Acquaintance with data of instrumental and laboratory inspections of the patient. Rationale for clinical diagnosis.

In the classroom, students systematize the data obtained during the examination of the patient in accordance with the scheme of writing a medical history. Analyzing the individual symptoms and highlighting the syndromes, formulate a preliminary diagnosis for the patient to be supervised. According to the preliminary diagnosis, substantiate the plan of necessary laboratory and instrumental examinations, treatment plan, which includes the appointment of the regime, diet and the main groups of drugs. Taking into account the previous diagnosis and the obtained results of laboratory and instrumental examinations, students formulate a clinical diagnosis and substantiate it.

**Teaching methods:**

In order to intensify the cognitive activity of students and optimize the educational process at the department introduced into the educational process the use of educational computer videos (author -, Professor

OG Yavorsky), namely: physical methods of examination of patients - Palpation, percussion, auscultation", audio-CD - "Respiratory murmurs" and "Sounds and murmurs of heart" and a textbook in 2 parts: I - Educational DVD-film "Palpation, percussion, auscultation" (the film is available on YouTube), II - Educational film "Palpation, percussion, auscultation" and the textbook "Patient care. Fundamentals of Nursing": an educational DVD-film recommended by the Ministry of Health of Ukraine as an educational video for students of higher medical educational institutions of I-IV levels of accreditation (the film is available on YouTube), "History. Review: photos of patients": educational DVD-film, also recommended by the CMC of the Ministry of Health of Ukraine as an educational video for students of higher medical educational institutions of I-IV levels of accreditation. Propaedeutics to Internal Medicine: Diagnostics; textbook for English learning Students of higher medical schools; Part 1 and Propaedeutics to Internal Medicine: Syndromes and diseases; textbook for English learning Students of higher medical schools; Part 2; Ed. 2 (O.N. Kovalyova, S. Shapovalova, O.O. Nizhegorodtseva).

New methodological techniques are being introduced into the educational process, taking into account modern achievements of pedagogical science, qualitative changes in the contingent of students, as well as in order to optimize work with both gifted and underachieving students. In particular, test tasks are widely used, updated guidelines for medical students (in accordance with the education of students under the Bologna Convention). Individualized and methodically in-depth work with gifted and underachieving students. Gifted students, if desired, are engaged in a student research group, where in-depth study of topics that interest them. Consultations are organized for underachieving students.

Forms of control of the level of knowledge: basic and final test control in practical classes; intermediate test control, as well as final test control.

When assessing the current success in the practical lesson, along with oral control, written control is used in the form of a written answer to unified questions. The final test control consists of two parts: theoretical and practical. The theoretical part provides answers to the questions of test control, and the practical part - demonstration of practical skills (from the list indicated at the end of the module) and analysis of the results of laboratory and instrumental research.

Interactive teaching methods are used during practical classes. In particular, clinical tasks, a case method, a method of clinical games, brainstorming, etc. are involved in the development of professional skills. As part of extracurricular training, students use research methods, the department has a subject research group, students are invited to implement interdisciplinary projects in their research activities and report results at scientific conferences at various levels.

Thus, the organization of the educational process at the department uses the methods that best meet the personality-oriented model of learning.

### **Control methods:**

Methods and forms of control and evaluation of student performance in the discipline are carried out in accordance with the requirements of the program and Instructions for evaluating students' learning activities in the implementation of the European credit transfer system, approved by the Ministry of Health of Ukraine (letter of the Ministry of Health of Ukraine № 08.01-47 / 10395 from 15.04. 2014).

When assessing students' knowledge, preference is given to standardized methods of control: testing (oral, written, computer), structured written work, structured control of practical skills.

Types of control (current and final).

The form of final control in accordance with the curriculum - credit (V semester) and differentiated credit (VI semester).

Evaluation criteria:

The current control is carried out during the training sessions and aims to verify the assimilation of educational material by students. The form of current control during training is determined by the curriculum of the discipline.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student, grades are set on a 4-point (traditional) scale, taking into account the approved assessment criteria for the relevant discipline. This takes into account all types of work provided by the curriculum. The student receives a grade on each topic. Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.

Current control is carried out in accordance with the specific objectives of each practical lesson. The following means of diagnosing the level of preparation of students are used for control: computer tests, control of practical skills in methods of examination of the patient with subsequent interpretation of the obtained data, analysis of the results of laboratory and instrumental studies.

### **Evaluation of current educational activities:**

The current assessment of students on relevant topics is carried out on a 4-point system (excellent, good, satisfactory, unsatisfactory) with subsequent conversion into a multi-point scale.

The grade "excellent" is given in the case when the student knows the content of the lesson and lecture material in full, illustrating the answers with various examples: gives comprehensively accurate and clear answers without any leading questions; spreads the material without errors and inaccuracies; freely solves problems and performs practical tasks of varying complexity.

The grade "good" is given when the student knows the content of the lesson and understands it well, answers the questions correctly, consistently and systematically, but they are not exhaustive, although the student answers additional questions without errors; solves all problems and performs practical tasks, experiencing difficulties only in the most difficult cases.

The grade "satisfactory" is given to the student on the basis of his knowledge of the whole content of the lesson and with a satisfactory level of understanding. The student is able to solve modified (simplified) problems with the help of leading questions; solves problems and performs practical skills, experiencing difficulties in simple cases; is not able to systematically state the answer on his own, but answers the directly asked questions correctly.

The grade "unsatisfactory" is given in cases when the student's knowledge and skills do not meet the requirements of "satisfactory" assessment.

**For disciplines which form of final control is differentiated credit:**

*The maximum number of points* that a student can score for the current academic activity for the semester for admission to the differentiated test is 120 points.

*The minimum number of points* that a student must score for the current academic activity for the semester for admission to the differentiated test is 72 points.

*The calculation of the number of points* is based on the grades obtained by the student on a traditional scale during the study of the discipline during the semester, by calculating the arithmetic mean (AM), rounded to two decimal places. The resulting value is converted into points on a multi-point scale as follows:

$$x = (AM \times 120) / 5$$

**Recalculation of the average score for current activities in a multi-point scale for disciplines that end with a differentiated credit**

table 2

4-score scale	200-score scale		4-score scale	200-score scale		4-score scale	200-score scale		4-score scale	200-score scale
5	120		4.45	107		3.91	94		3.37	81
4.95	119		4.41	106		3.87	93		3.33	80
4.91	118		4.37	105		3.83	92		3.29	79
4.87	117		4.33	104		3.79	91		3.25	78
4.83	116		4.29	103		3.74	90		3.2	77
4.79	115		4.25	102		3.7	89		3.16	76
4.75	114		4.2	101		3.66	88		3.12	75
4.7	113		4.16	100		3.62	87		3.08	74
4.66	112		4.12	99		3.58	86		3.04	73
4.62	111		4.08	98		3.54	85		3	72
4.58	110		4.04	97		3.49	84		less	not
4.54	109		3.99	96		3.45	83		3	enough
4.5	108		3.95	95		3.41	82			



*Students' independent (individual) work* is assessed during the current control of the topic in the relevant lesson. Assimilation of topics, which are submitted only for independent work, is controlled during the final control.

**Semester control** is carried out in order to assess learning outcomes at a certain educational level and at its individual stages at the national scale and ECTS scale in the form of credit (differentiated credit) in the amount of study material defined by the work program of the discipline and within the deadlines set by the working curriculum. plan.

**Semester credit** is a form of final control, which consists in assessing the student's mastery of educational material in the discipline solely on the basis of the results of all types of educational work provided by the working curriculum. The semester credit is set based on the results of the current control.

**Semester differentiated credit** is a form of final control of mastering by the student of theoretical and practical material from separate educational discipline for a semester which is spent as a control action. A student is considered admitted to the semester exam in the discipline if he attended all classes provided by the curriculum in the discipline, performed all types of work provided by the work program of this discipline and during its study during the semester scored at least the minimum (72 points).

The semester differentiated test is held in the last 19 classes in the spring (VI) semester according to the schedule. The form of differentiated credit is standardized and includes control of theoretical and practical training.

The control of theoretical training consists in answering 20 questions of test control of elementary level, each question of which is estimated in 0,5 points, 14 tests of the increased complexity which question is estimated in 1 point and the decision of 2 situational problems, each of which is estimated in 8 points.

Thus, the maximum number of points that a student can receive for theoretical training is:

$$0,5 \times 20 + 1 \times 14 + 8 \times 2 = 10 + 14 + 16 = 40$$

The control of practical training consists in demonstration of performance of practical skills and the analysis of results of laboratory and ECG researches. The maximum number of points that a student can get during a differentiated test is 80, with the maximum score for test control is 40 points, for practical skills - 20 points, for analysis of laboratory results and ECG - 20 points.

The implementation of practical skills is as follows:

- palpation, percussion and auscultation of the lungs - 5 points ;
  - palpation, percussion and auscultation of the heart - 7 points;
  - palpation of the abdomen - 8 points.
- } total maximum  
20 points

Analysis of laboratory and ECG results:

- 3 ECG: 4 points x 3 = 12 points;
  - 4 laboratory tests: 2 points x 4 = 8 points
- } total maximum  
20 points

The minimum number of points in the differentiated test - not less than 50.

Points from the discipline are independently converted into both the ECTS scale and the 4-point scale. ECTS scale scores are not converted to a 4-point scale and vice versa.

The scores of students studying in one specialty, taking into account the number of scores scored in the discipline are ranked on the ECTS scale as follows:

Points ECTS	The statistical indicator
<b>A</b>	<b>The best 10% of students</b>
<b>B</b>	<b>The next 25% of students</b>
<b>C</b>	<b>The next 30% of students</b>
<b>D</b>	<b>The next 25% of students</b>
<b>E</b>	<b>The last 10% of students</b>

table 3

Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below:

table 4

<b>Points from discipline</b>	<b>Grade on 4-point scale score</b>
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimum	3
The number of points that student must collect	2

The ECTS score is not converted to the traditional scale, as the ECTS scale and the four-point scale are independent. The objectivity of the assessment of students' learning activities is checked by statistical methods (correlation coefficient between ECTS assessment and assessment on a national scale).

## **7. RECOMMENDED LITERATURE:**

1. Propaedeutics to Internal Medicine: Diagnostics; textbook for English learning Students of higher medical schools; Part 1.; Ed. 2 / O.N. Kovalyova, T.V. Ashcheulova – Vinnytsya: Nova Knyha publishers, 2011. – 424 p.
2. Propaedeutics to Internal Medicine: Syndromes and diseases; textbook for English learning Students of higher medical schools; Part 2; Ed. 2 / O.N. Kovalyova, S. Shapovalova, O.O. Nizhegorodtseva – Vinnytsya: Nova Knyha publishers, 2011. – 264 p.
3. Fundamentals of Nursing: Standards and Practice Fourth Edition / Sue C. DeLaune, Patricia K. Ladner – United States of America: Delmar, Cengage Learning, 2011. – 1438 p.;
4. Delmar's fundamental and advanced nursing skills / Gaylene Altman, Patricia Buschel, and Valerie Coxon – Canada: Delmar, Thomson Learning, 2000. – 1436 p.
5. Nursing Assistant: A Nursing Process Approach—BASICS / Barbara R. Hegner, Barbara Acello, Esther Caldwell – United States of America: Delmar, Cengage Learning, 2010. – 701 p.
6. Mosby's Guide to Physical Examination, 7th Edition / Henry M. Seidel, Rosalyn W. Stewart et al. – 2011. – 327 p.