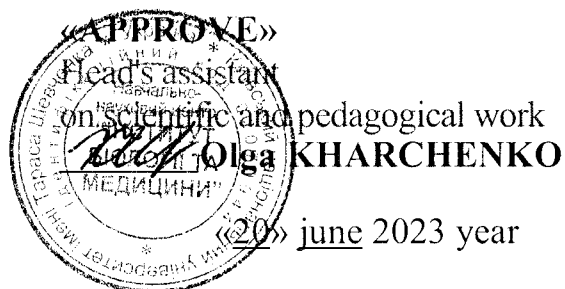


TARAS SHEVCHENKO
NATIONAL UNIVERSITY OF KYIV

Educational and Scientific Centre «Institute of Biology and Medicine»

Department of Internal Medicine



**WORKING PROGRAMME OF THE STUDYING
DISCIPLINE**

SEMIOTICS

for students

branch	<u>22 «Healthcare»</u>
specialty	<u>222 «Medicine»</u>
educational degree	<u>«Magistrate»</u>
educational program	<u>«Medicine»</u>
discipline type	<u>selective</u>

Form of study	<u>daytime</u>
Study year	<u>2023/2024</u>
Semester	<u>5</u>
Number of credits ECTS	<u>3</u>
Language of study, learning and rating	<u>English</u>
Form of final control	<u>credit</u>

Teachers: _____

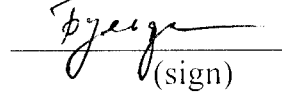
Prolonged: to 20__/20__ s.y. _____ (_____) «__» 20__ y.
(sign, full name, data)

to 20__/20__ s.y. _____ (_____) «__» 20__ y.
(sign, full name, data)

Developer: Berdnyk I.O., PhD, assistant professor department of internal medicine

APPROVED

Head of the Department of Internal Medicine

 **Volodymyr BULDA**
(sign)

Protocol № 9 from «07» June 2022

**Approved by scientific and methodical commission of
Educational and Scientific Centre «Institute Of Biology and Medicine» of
Taras Shevchenko National University of Kyiv**

Protocol from «20» June 2023 year № 6

Head of the scientific and methodical commission  **Natalya SKRYPNYK**

«20» June 2023 year

According to the requirements of the project of the Standard of Higher Education of Ukraine (second (master's) level of higher education (level #7), field of knowledge 22 "Health care", specialty 222 "Medicine"), the discipline "Semiotics" ensures that students acquire the following *competencies* :

✓ **integral:**

The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.

✓ **general:**

- GC.01. Ability to think abstractly, analyze and synthesize.
- GC.02. Ability to learn and master modern knowledge.
- GC.03. The ability to apply knowledge in practical situations.
- GC.04. Knowledge and understanding of the subject area and understanding of professional activity.
- GC. 05. The ability to adapt and act in a new situation.
- GC.06. Ability to make informed decisions.
- GC. 07. The ability to work as a team.
- GC.08. Ability to interpersonal interaction.
- GC. 09. Ability to communicate in in a foreign language.
- GC.10. Ability to use information and communication technologies.
- GC.11. Ability to search, process and analyze information from various sources.
- GC.12. Determination and perseverance regarding tasks and responsibilities.

✓ **special (professional, subject matter):**

- PC.01. Ability to collect patient medical information and analyze clinical data.
- PC. 02. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
- PC.03. Ability to establish a preliminary and clinical diagnosis of the disease.
- PC 07. Ability to diagnose emergency conditions.
- PC 12. The ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning counseling skills and contraceptive method selection.
- PC 19. Ability to organize and integrate the provision of medical care to the population and marketing of medical services.
- PC 21. It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to those willing to learn.
- PC 25. Observance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

1. The purpose of the discipline is the formation of students of the basics of clinical thinking and the acquisition of professional competences in examining patients and assessing the main symptoms and syndromes of diseases of internal organs in compliance with the principles of medical ethics and deontology.

2. Preliminary requirements for mastering or choosing a discipline:

1. Successful mastering of the educational disciplines «Medical biology», «Medical and biological physics», «Human anatomy», «Physiology», «Bioorganic and biological chemistry», «Medical chemistry», «Histology, cytology and embryology», «Microbiology, virology and immunology».

2. The ability to independently apply knowledge of medical biology, medical and biological physics, human anatomy, physiology, bioorganic and biological chemistry, medical chemistry and other educational disciplines for the solution of specific scientific and practical problems; work with scientific and methodological literature.

3. Owning elementary skills of systemic analysis.

3. Annotation of the discipline:

The educational discipline "Semiotics" is a component of the cycle of training specialists of the "Master's" educational level under the "Medicine" educational program. "Semiotics" is a selective discipline that studies the peculiarities of clinical examination of a patient, methods and rules of collecting complaints, history of disease, life history, family history and concomitant diseases. Special attention is paid to the study of subjective and objective manifestations of diseases (symptoms and syndromes), causes and mechanisms of their occurrence in order to establish a diagnosis.

In general, semiotics is understood as the name of symptoms. This is a branch of medicine that studies the signs and symptoms of various diseases.

The study of this discipline is important in the training of doctors, because semiotics is an integral part of establishing a diagnosis and directly affects the formation of a treatment scheme and further management tactics.

4. Tasks (training goals):

- 1) to provide that the student acquires basic theoretical knowledge necessary for the detection of human diseases;
- 2) mastering methods and rules for collecting patient complaints;
- 3) mastering the methods and rules of collecting an anamnesis of the patient's life, disease, allergic reactions and heredity;
- 4) assimilation of general methodical approaches of clinical examination of the patient;
- 5) formation of the ability to identify the main syndromes in pathologies of internal organs;
- 6) students mastering the skills of diagnosing internal diseases with their typical manifestations;
- 7) formation of students' moral, ethical and deontological qualities in professional communication with the patient.

5. Results of studying in a discipline:

Results of studying (1. to know; 2. to be able; 3. communication; 4 autonomy and responsibility)		Forms (and / or methods and technologies) of teaching and learning	Methods of evaluation	Percentage in the final evaluation of the discipline
Cod	Results of studying			
	To know			
1.1.	Major etiological and pathogenetic factors in the formation of pathological processes in a human body	Lecture, individual work	Intermediate module control 1,2; final control; evaluation of the presentation/report; oral answers/additions	5
1.2.	Methodological basis of clinical examination of the patient, schemes of patient examination and writing of medical history	Practical lesson, individual work	Intermediate module control 1,2; final control; evaluation of the presentation/report; oral answers/additions	5
1.3.	Methodological basis of patient examination and assessment of the general condition	Lecture, Practical lesson, individual work	Intermediate module control 1,2; final control; evaluation of the presentation/report; oral answers/additions	5
1.4.	The most important symptoms and syndromes in the clinic of internal diseases and their semiotic interpretation.	Lecture, Practical lesson, individual work	Intermediate module control 1,2; final control; evaluation of the presentation/report; oral answers/additions	5
1.5.	The basics of differential diagnosis of the main diseases of internal organs and the basis of the selection of symptoms and syndrome	Practical lesson, individual work	Intermediate module control 1,2; final control; evaluation of the presentation/report; oral answers/additions evaluation of practical works, exam	5
	To be able			
2.1.	Demonstrate the knowledge of moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic of internal diseases	Individual work	Assessment of presentation/report; assessment of practical works	5
2.2.	Conduct a survey and physical examination of patients and analyze their results in the clinic of internal diseases	Practical lesson	Intermediate module control 1,2; final control; assessment of practical works	5
2.3.	Make a plan for patient examination in the typical course of the most common therapeutic diseases	Practical lesson, individual work	Intermediate module control 1,2; final control; assessment of practical work completion	10
2.4.	To determine the leading symptoms and syndromes in the clinic of internal diseases	Practical lesson, individual work	Intermediate module control 1,2; final control; assessment of practical work completion	10

2.5.	Based on the leading symptoms and syndromes, establish a preliminary diagnosis for the patient	Practical lesson	Intermediate module control 1,2; final control; assessment of practical work completion	10
2.6.	Formation of the patient's medical history with justification of the syndromic diagnosis	Practical lesson	Intermediate module control 1, 2; defense of case report; assessment of practical work completion	10
2.7.	Demonstrate possession of skills which are needed for the organization of the mode of stay of patients in the departments of therapeutic profile	Practical lesson	Intermediate module control 1, 2; assessment of practical work completion	5
2.8.	Demonstrate first-aid skills for patients with cardiovascular, respiratory and digestive disorders	Practical lesson	Intermediate module control 1, 2; assessment of practical work completion	10
Communication				
3.1	Use state language for professional and business communication and for document preparation; foreign language in professional activity; to establish interpersonal relationships for efficient fulfillment of tasks and responsibilities	Practical lesson, individual work	assessment of the presentation / report; oral answers / additions	5
Autonomy and liability				
4.1.	Adhering to ethical and legal norms, to be responsible for making reasonable decisions and actions on the correctness of established syndromic diagnosis of the disease	individual work	assessment of the presentation / report	5

6. The ratio of results of studying discipline with programmatic learning outcomes

5 semesters

Learning outcomes disciplines (code) Program results study (name)	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	3.1	4.1
PL001 Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.	+	+	+	+	+		+				+	+	+		
PL002 Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.	+	+	+	+	+		+	+	+	+	+			+	+
PL003 Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems.				+	+	+					+	+	+	+	+
PL004 Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis (according to list 2).				+	+	+					+	+	+	+	+
PL005 Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient.	+	+				+					+	+		+	+
PL006 To establish a final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the managing physician in the conditions of the health care institution (according to the list 2).	+	+	+	+	+		+	+	+	+	+			+	+
PL007 Assign patients and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) for differential diagnosis of diseases (according to list 2).				+	+	+					+	+	+	+	+
PL008 Determine the main clinical syndrome or what causes the severity of the condition of the victim / victim (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the	+	+				+					+	+		+	+

conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.																				
PL009 Determine the nature and principles of treatment of patients (conservative, operative) with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case the need to expand the standard scheme, to be able to substantiate personalized recommendations under the control of the head physician in the conditions of a medical institution.	+	+	+	+	+		+							+	+	+				
PL 10. Determine the necessary regime of work, rest and nutrition based on the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	+	+	+	+	+		+	+	+	+	+					+	+	+		
PRN 16. Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions and organizations; to apply tools for the promotion of medical services, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.				+	+	+								+	+	+	+	+		
PRN 17. To perform medical manipulations (according to list 5) in the hospital, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.	+	+	+	+	+		+							+	+	+				
PRN 18. Determine the state of functioning and limitations of a person's vital activities and their duration incapacity for work with the preparation of relevant documents, in the conditions of a health care institution based on data about the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.	+	+	+	+	+		+	+	+	+	+					+	+	+		
PRN 21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.				+	+	+								+	+	+	+	+		
PRN 22. Apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health care problems.	+	+	+	+	+		+							+	+	+				

7. Scheme of formation of the assessment.

7.1. Forms of student evaluation:

- semester assessment:

1. Intermediate control 1 – PH 1.1–1.5, 2.2–2.8 – 10 points / 5 points
2. Intermediate control 2 – PH 1.1–1.5, 2.2–2.8 – 10 points / 5 points
3. Final control – pH 1.1–1.5, 2.2–2.8 – 20 points / 10 points
4. Presentations/reports – PH 1.1–1.5, 2.1, 3.1, 4.1. – 10 points / 5 points
5. Oral answers/additions - PH 1.1–1.5, 3.1. – 10 points / 5 points
6. Assessment of practical lessons completion - PH 1.5, 2.1–2.8 – 40 points / 20 points

- semester assessment (semester control): credit

The final grade from the educational component, the final form of control for which credit is established, is defined as the sum of grades (points) for all successfully assessed learning outcomes. Scores below the minimum threshold level are not added to the final score.

Completion of all practical classes is mandatory for receiving a positive final grade (60 points and above and "passed").

It is not allowed to retake the semester control in order to improve a positive grade.

7.2. Organization of evaluation:

Intermediate control 1 and 2 are carried out after the completion of corresponding thematic lectures from Section 1 and 2. Assessment of practical tasks is carried out at the end of the course of lectures. Assessment of prepared presentations/reports and their defense, oral answers/additions is carried out throughout the semester. Final control is carried out at the end of the course in the form of testing.

7.3. Validity Scale

Passed	60-100
Fail	0-59

8. The structure of the academic discipline. Thematic plan

8. The structure of the academic discipline. Thematic plan					
No n/p	Name of topics	Number of hours			
		Lectures	Practical training	Consultations	Independent work*
Section 1.					
1.	Lecture 1. The main symptoms and syndromes of cardiovascular diseases	2			
2.	Practical lesson 1. Collection of complaints and general examination of patients with cardiovascular disease.		2		
3.	Independent work. Curation of patients with the writing of the anamnestic section of the case report.				3
4.	Practical lesson 2. Basic characteristics of pulse and blood pressure in the most common cardiovascular diseases.		2		
5.	Independent work. Rules for blood pressure measurement, preparation for this. Rules for pulse measurement, determination of the main arteries and areas for this.				3
6.	Practical lesson 3. Basic characteristics of chest pain association with cardiovascular disease		2		
7.	Independent work. Differential diagnosis of chest pain in neurological disorders, psycho -emotional excitement and gastrointestinal diseases.				3
8.	Lecture 2. Main symptoms and syndromes in diseases of the gastrointestinal tract	2			
9.	Practical class 4. Main symptoms and syndromes in diseases of the upper gastrointestinal tract (esophagus, stomach, duodenum).		2		
10.	Independent work. Features of functional pathology of esophagus, stomach, duodenum.				3
11.	Practical lesson 5. Main symptoms and syndromes of hepatobiliary diseases		2		
12.	Independent work. Features of the functional pathology of the hepatobiliary system. Correlation of complaints and objective data with the results of liver tests				3
13.	Practical session 6. Main symptoms and syndromes of intestinal diseases		2		
14.	Independent work. Features of functional intestinal pathology. Symptoms of parasitic infections				3
15.	Lecture 3. Main symptoms and syndromes of hematological diseases	2			
16.	Practical lesson 7. Main symptoms and syndromes of different types of anemia		2		
17.	Independent work. Modern anemia classification. Deficiencies of iron, folic acid and vitamin B12. Genetic abnormalities as etiology factor of anemia.				3
18.	Practical lesson 8. Main symptoms and syndromes of leukemia		2		
19.	Independent work. Modern eukemia classification. Differential diagnosis with infectious pathology, thrombophilias				3

20.	Intermediate control 1				1
Section 2.					
21.	Lecture 4. Main symptoms and syndromes of respiratory diseases	2			
22.	Practical lesson 9. Main symptoms and syndromes of broncho-obstructive pathologies (bronchial asthma and COPD)		2		
23.	Independent work. Differential diagnosis of broncho-obstructive pathologies. Features of occupational diseases (pneumoconiosis).				3
24.	Practical class 10. Main symptoms and syndromes of inflammatory diseases in bronchi and lungs		2		
25.	Independent work. Differential diagnosis of purulent-destructive lung diseases (abscess, lung gangrene)				3
26.	Lecture 5. Main symptoms and syndromes in endocrine disorders	2			
27.	Practical lesson 11. Main symptoms and syndromes of diabetes mellitus		2		
28.	Independent work. Determination of normal and elevated (pre-diabetes, diabetes) glucose indicators. Differential diagnosis of diabetes mellitus and diabetes insipidus.				3
29.	Practical session 12. Main symptoms and syndromes in diseases of the thyroid and parathyroid glands		2		
30.	Independent work. Determination of the hormonal status of eu -, hypo -, hyperthyroidism. Peculiarities of the clinical picture of adrenal gland diseases.				3
31.	Practical lesson 13. Main symptoms and syndromes in diseases of the hypothalamus and pituitary gland		2		
32.	Independent work. Determination of growth and weight indicators according to international standards. The concept of obesity and overweight.				3
33.	Intermediate control 2				1
34.	Lecture 6. Main symptoms and syndromes in diseases of the musculoskeletal system and joints	2			
35.	Practical session 14. Main characteristics of joint syndrome of inflammatory genesis		2		
36.	Independent work. Accompanying symptoms in systemic connective tissue diseases associated with arthritis.				3
37.	Practical lesson 15. Main characteristics of joint syndrome of non-inflammatory genesis (mechanical reason, osteoarthritis)		2		
38.	Independent work. Preparation for the final control				2
39.	Final control		2		
	Total: 90 hours	12	32		46

* If there are changes to the schedule of the educational process, see Appendix 1

The total amount of: 90 hours, including:

Lectures - 12 hours

Practical classes - 32 hours

Independent work - 46 hours

9. Recommended Sources:

Main: (Basic)

1. Practicum in Propedeutics of Internal Medicine. Part 1. Main methods of the patient's examination in internal medicine : methodical instruction for students / T. V. Ashcheulova, O. N. Kovalyova, G. V. Demydenko and all. - Kharkiv : KhNMU, 2017. - 63 p.
2. Ashcheulova, T., Demydenko, G., Kompaniiets, K., Kochubiei, O., & Shapovalova, S. (2020). Practicum in Propedeutics of Internal Medicine. Part 1. Main methods of the patient's examination in internal medicine.
3. Bates' Guide to Physical Examination and History Taking /Ed. Lynn S. Bickley, Peter G. Szilagyi. - Wolters Kluwer, 2017. - 1066 p.
4. Lukashenko, L. V., Likhasenko, I. V., Oleynik, O. I., Avramenko, N. F., Lysenko, V. A., & Zhemanuk, S. P. (2022). Propedeutics of Internal Medicine. Section 1: Collection of tests for the third-year foreign students specialty: 222" Medicine".

Additional:

1. Macleod's Clinical Examination / Ed. G.Douglas, F.Nicol, C.Robertson.- 13th ed.- Elsevier. 2013. - 471 p.
2. Macleod's Clinical Examination / Ed. G.Douglas, F.Nicol, C.Robertson.- 13th ed.- Elsevier. 2013. - 471 p.
3. Vasiuk V., Shubravsky A., Splavsky O. Methods of patient clinical examination. - Chernovtsy: Misto, 2006. - 134 p.
4. Riley, D. S., Barber, M. S., Kienle, G. S., Aronson, J. K., von Schoen-Angerer, T., Tugwell, P., ... & Gagnier, J. J. (2017). CARE guidelines for case reports: explanation and elaboration document. Journal of clinical epidemiology, 89, 218-235.
5. Kovalyova o., Ashcheulova T., Shapovalova S., Instrumental examination of the cardiovascular system. - Kharkiv, 2005. - 160 p.

Additional resources:

1. From the topics «General inspection of the patient, inspection of different parts of the body»
- <http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm>
- <http://meded.ucs.d.edu/clinicalmed/>
2. From the topics of module «Main methods of respiratory system examination»
- <http://meded.ucs.d.edu/clinicalmed/>
- <http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm>
3. From the topics of module «Main methods of cardiovascular system examination»
- <http://www.cardiologysite.com/>
- <http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm>
- <http://www.blaufuss.org/>
- <http://meded.ucs.d.edu/clinicalmed/>
4. From the topics of module «Main methods of gastrointestinal tract and kidney examination»
- <http://www.meddean.luc.edu/lumen/meded/medicine/pulmonar/pd/contents.htm>
- <http://gastroresource.com/GITextbook/En/Default.htm>
- <http://meded.ucs.d.edu/clinicalmed/>