MINISTRY OF HEALTH OF UKRAINE

KHARKIV NATIONAL MEDICAL UNIVERSITY

Propedeutics of Internal Medicine No. 2 and Nursing

Academic year 2024-2025

SYLLABUS OF THE ACADEMIC COMPONENT

"Fundamentals of instrumental diagnostics"

Elective educational component
The format of the educational component is full-time
Branch of knowledge 22 "Health care"
Specialty "223"Nursing"
Educational and professional program"Nursing"
First (bachelor) level of higher education
Course Fourth (four years of study)

The syllabus of the educational component was considered at the meeting of the Department of Propedeutics of Internal Medicine No. 2 and Nursing

Protocol of June 14, 2022 No. 11 Approved by methodical commission of KhNMU on problems of the therapeutic profile

Protocol of August 25, 2022 No. 1

Head of commission

(signature)

Acting Head of the Department

Associate Prof. Pionova O. M. (surname and initials)

Professor Kravchun P.P (surname and initials)

DEVELOPERS OF THE SYLLABUS:

- 1. Khimich T.Yu., associate professor of the department of PIM No. 2 and nursing, associate professor, Ph.D.
- 2. Pionova O.M. associate professor of the department of PIM No. 2 and nursing, associate professor, Ph.D.
- 3. Bolokadze E.O., associate professor of the department of PIM No. 2 and nursing, associate professor, Ph.D.

INFORMATION ABOUT TEACHERS OF THE EDUCATIONAL COMPONENT

Surname, first name, patronymic, position, academic title, scientific degree

Pionova O.M. aassociate professor of the department of PIM No. 2 and nursing, associate professor, Ph.D.

Professional interests: therapy, , pulmonology,

Contact phone and e-mail of the teacher+380506050642om.pionova@knmu.edu.ua

Yaroschuk Alina Vitalyivna, assistant of the department of PIM No. 2 and nursing, master of nursing

Professional interests: nursing

Contact phone and e-mail of the teacher+380972419718av.yaroshchuk@knmu.edu.ua

<u>Information about consultations</u> Face-to-face consultations: according to the department's schedule based on the department - regional clinical hospital by the prior agreement. Online consultations: by prior appointment by agreement with the teacher using the resources of the Moodle system (http://31.128.79.157:8083/login/index.php)

<u>Location</u> Venue of lectures and practical classes: lecture hall and classrooms of the department of propaedeutics of internal medicine No. 2 and nursing (Nezalezhnosti Ave, 13)

Time of classes: Monday, Tuesday, Wednesday, Thursday, Friday (9:00-11:50/13:20-17%10 according to the schedule);

INTRODUCTION

Syllabus of the educational component "Fundamentals of Instrumental Diagnostics" was compiled in accordance with the educational and professional program (hereinafter referred to as the "Nursing Program") "Nursing" and the Standard of Higher Education of Ukraine (hereinafter referred to as the Standard), first (bachelor's) level, field of knowledge 22 "Health Care", specialty "Nursing"

Instrumental research methods are an integral part of the diagnostic process. The wide application of instrumental research methods allows to detect signs of the disease, to study the disease more deeply, and most importantly, to carry out their earlier diagnosis, without which timely treatment is impossible. Instrumental diagnostics is an integral part of a single diagnostic process based on clinical thinking. The main task of the discipline is the assimilation of theoretical knowledge and the acquisition of practical skills of modern instrumental research when establishing and verifying the diagnosis of patients with the most common diseases, carrying out an objective assessment of the state of health, conducting disease diagnostics, monitoring the effectiveness of treatment, further forecasting the course of the disease and quality of life.

Subject the educational component "Fundamentals of Instrumental Diagnostics" is a purposeful full set of instrumental studies to assess the functional state of body systems; solving issues related to early diagnosis of diseases, monitoring the effectiveness of treatment measures, forecasting the course and consequences of the disease.

Pre-requisites and post-requisites: according to the sample curriculum, the study of the educational component "Fundamentals of Instrumental Diagnostics" is carried out in the 7th or 8th semesters, when the student of higher education has acquired relevant knowledge in the main basic disciplines: "Human Anatomy", "Medical Chemistry", "Physiology human", "Pathophysiology and pathomorphology", "Fundamentals of nursing", "Biology and microbiology", "Examination and assessment of human condition". In turn, the discipline "Fundamentals of Instrumental Diagnostics" forms the basis for studying the next clinical discipline by a student of higher education - clinical nursing in internal medicine, which involves "vertical" integration with these disciplines and the formation of skills to apply knowledge of the basic methods of examining a patient in the process of further education and in professional activity..

Link to the educational component page in MOODLE https://distance.knmu.edu.ua/my/

1. THE AIM AND TASK OF THE EDUCATIONAL COMPONENT

1.1. The purpose of studying the educational component "Fundamentals and nstrumental diagnostics" is the acquisition of theoretical and practical knowledge regarding modern diagnostic methods in the clinic of internal diseases, indications and contraindications for their appointment, methods of conducting, analyzing and interpreting the results of research within the limits that correspond to the training of a general practitioner taking into account the peculiarities of his specialty.

1.2. The main tasks of the academic component

"Fundamentals of instrumental diagnostics" are:

- Mastering a set of standards for modern instrumental diagnostics
- Determination of the rules of patient preparation for instrumental research
- Objective assessment of the results of instrumental studies when establishing a diagnosis.
- **1.3.** Competencies and learning outcomes, the formation of which contributes to the discipline (the relationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the EPP and the Standard).
- **1.3.1.** The study of the educational component ensures that bachelor of nursing acquire the following competencies:

integral:

Competencies and learning outcomes.

According to the requirements of the standard, the discipline ensures the acquisition of higher education by students

competencies:

– integral:

the ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves conducting research and/or implementing innovations and is characterized by complexity and uncertainty of conditions and requirements.

- general:
- GC 01. The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.
- GC 02. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of 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, use different types and forms motor activity for active recreation and leading a healthy lifestyle.
- GC 03. Ability to abstract thinking, analysis and synthesis
- GC 04. Ability to apply knowledge in practical situations
- GC 05. Knowledge and understanding of the subject area and understanding of professional activity
- GC 06. Ability to communicate in the state language both orally and in writing
- GC 07. Ability to communicate in a foreign language
- GC 08. Skills in using information and communication technologies
- GC 09. Determination and persistence in relation to assigned tasks and assumed duties
- GC 10. Ability to make informed decisions
- GC 11. Ability to work in a team
- GC 12. Skills of interpersonal interaction
- GC 13. Ability to act on the basis of ethical considerations
- special (professional, subject):

- PC 01. Ability to apply professional and legal standards in everyday professional practice.
- PC 02. The ability to recognize and interpret signs of health and its changes, illness or disability (assessment/diagnosis), restrictions on the possibility of full-fledged life activities, and to determine the problems of patients with various diseases and conditions.
- PC 04. Application of professional skills (skills), medical means, interventions and actions to ensure the patient/client's dignified treatment, privacy (intimacy), confidentiality, protection of his rights, physical, psychological and spiritual needs on the basis of transcultural nursing, tolerant and non-judgmental behavior.
- PC 05. The ability to effectively apply a combination of nursing skills (skills), medical devices, interventions and actions to provide care based on a holistic (holistic) approach, taking into account the satisfaction of the patient's needs for comfort, nutrition, personal hygiene and the ability of the person to meet his daily needs.
- PC 06. Ability to effectively apply a set of professional skills (skills), medical devices, interventions and actions in assessing the functional state of patients/clients, preparing them for diagnostic studies and taking biological material for laboratory studies.
- PC 13. The ability to identify the relationship between clinical manifestations of diseases and the results of additional research methods.
- **1.3.2.** The study of the educational component ensures that the student of higher education acquires the following program learning outcomes:
- PLO 2. Carry out nursing diagnosis: identify and assess the patient's problems.
- PLO 3. Plan nursing interventions.
- PLO 14. To be able to prepare the patient, collect and direct biological material for laboratory and instrumental research.
- **1.3.3.**The study of the educational component ensures that bachelor of nursing acquire the following social skills (soft skills):
 - Communication skills
 - Ability to work in a team, communicate with people and manage conflicts
 - Ability to assess and analyze situations
 - Ability to organize, plan and effectively execute projects and tasks
 - Ability to perform work professionally and responsibly
 - The ability to demonstrate emotional intelligence in interactions with colleagues, clients, with the manager, a sense of tact and timeliness of reaction.

2. INFORMATION VOLUME OF THE EDUCATIONAL COMPONENT

2.1 Description of the educational component

Name of indicators	Branch of knowledge, speciality and education level, EPP	Characteristics of the educational component Full-time education
The number of credits is 3	Training direction 22 "Health"	Elective
		Year of training:
	Specialty: 223 "Nursing"	4th
The total number of hours		Semester
is 90		7th/8th
		Lectures
Hours for full-time study:	Education level:	24 hours
class - 34	bachelor	Practical

independent student work	10 hours
-56	Independent work
	56 hours
	Individual tasks.
	Type of control: credit

2.2.1 Lectures

No	Topic name	Number	Type of
		hours	lecture
1	Instrumental methods of examination of the cardiovascular system.	2	Thematic
2	Electrocardiographic method of heart function research. Methodology of ECG registration and decoding.	2	Thematic
3	Electrocardiographic study of patients with coronary circulation disorders	4	Thematic
4	Electrocardiographic study of patients with the main types of arrhythmias.	2	Thematic
5	Instrumental methods of diagnosis of respiratory diseases: spirographic study	2	Thematic
6	Instrumental methods of diagnosis of respiratory diseases: bronchoscopy, X-ray methods	2	Thematic
7	Instrumental methods of diagnosis of diseases of the gastrointestinal tract: methods of research of the esophagus and stomach	2	Thematic
8	Instrumental methods of diagnosis of diseases of the gastrointestinal tract: methods of intestinal research	2	Thematic
9	Instrumental methods of diagnosis of diseases of organs of hepatobiliary system and pancreas.	2	Thematic
10	Instrumental methods of diagnosis of diseases of the genitourinary system.	2	Thematic
11	Modern methods of instrumental diagnostics of pathology of internal organs	2	Thematic
Total	lecture hours	24	

2.2.2 Seminar classes are not included in the program

2.2.3 Practical classes

No	Topic name	Number	Teaching	Forms of control
s/p		hours	methods	
1	Electrocardiographic method of heart function	2	story-	oral survey
	research. Methodology of ECG registration and		explanation,	(individual and
	decoding.		conversation,	face-to-face);
			demonstration,	written survey;
			presentation,	test control;
			video clips,	creative tasks;
			video films,	individual tasks;
			discussion,	abstracts;
			round table,	annotations;
			business, role-	mutual control;
			playing,	self-control;

			simulation	report;
			game,	declamation
			simulation of	
			processes and	
			situations,	
			delegation of	
			authority, case	
			method, debate,	
			sparring-	
			partnership	
			(study in pairs),	
2	Electrocardiographic examination of patients	2	story-	oral survey
	with coronary circulation disorders and the main	2	explanation,	(individual and
	· · · · · · · · · · · · · · · · · · ·		conversation,	face-to-face);
	types of arrhythmias.		demonstration,	written survey;
			presentation,	test control;
				creative tasks;
			video clips, video films,	
			,	individual tasks;
			discussion,	abstracts;
			round table,	annotations;
			business, role-	mutual control;
			playing,	self-control;
			simulation	report;
			game,	declamation
			simulation of	
			processes and	
			situations,	
			delegation of	
			authority, case	
			method, debate,	
			sparring-	
			partnership	
			(study in pairs),	
3	Instrumental methods of examination of the	1	story-	oral survey
	cardiovascular system.	-	explanation,	(individual and
	cardiovasculai system.		conversation,	face-to-face);
			demonstration,	written survey;
			presentation,	test control;
			video clips,	creative tasks;
			video clips, video films,	individual tasks;
			discussion,	•
			·	abstracts;
			round table,	annotations;
			business, role-	mutual control;
			playing,	self-control;
			simulation	report;
			game,	declamation
			simulation of	
			processes and	
			situations,	
			delegation of	
			authority, case	
			method, debate,	
			sparring-	
			partnership	
			(study in pairs),	
4	Instrumental methods of diagnosis of respiratory	2	story-	oral survey
	diseases.		explanation,	(individual and
			conversation,	face-to-face);
			,	,,

			demonstration, presentation, video clips, video films, discussion, round table, business, role- playing,	written survey; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control;
			simulation game, simulation of processes and situations,	report; declamation
			delegation of authority, case method, debate, sparring-	
			partnership (study in pairs),	
5	Instrumental methods of diagnosis of diseases of the gastrointestinal tract.	1	-«-	-«-
6	Instrumental methods of diagnosis of diseases of the genitourinary system.	1	-«-	-«-
7	Test	1	-«-	oral survey (individual and face-to-face); written survey; test control; creative tasks; individual tasks
	Hours in general	10		

${\bf 2.2.4.}$ Laboratory classes are not included in the program

2.2.5. Independent work

No	Topic name	Number	Teaching methods	Forms of
s/p		hours		control
	Before classroom preparation for practica	ıl classes on	topics	
1	Echocardiographic diagnosis of circulatory system diseases.	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
2	ECG diagnosis of heart rhythm and conduction disorders.	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
3	Instrumental methods of diagnosis of respiratory diseases.	8	Videos, video films, independent work with	abstracts; annotations; self- control; report; declamation

			information sources.	
4	Instrumental methods of diagnosis of diseases of the gastrointestinal tract.	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
5	Instrumental methods of diagnosis of diseases of organs of hepatobiliary system and pancreas.	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
6	Instrumental methods of diagnosis of diseases of the genitourinary system	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
7	Individual work with literature and other sources of information and preparation of speeches, discussions and discussions at seminar classes	8	Videos, video films, independent work with information sources.	abstracts; annotations; self- control; report; declamation
	Hours in general	56		

Teaching methods (indicate only those that are used during the teaching of the discipline): lecture, story-explanation, conversation, demonstration, presentation, video clips, video films, discussion, round table, business, role-playing, simulation game, simulation of processes and situations, delegation of authority, case method, debate, sparring-partnership (study in pairs),

Control methods:

Current control: oral survey (individual and face-to-face); written survey; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; declamation;

Final control: Test

3. EVALUATION CRITERIA

3.1. The evaluation of the educational success of education seekers is carried out on the basis of the current "Instructions for the evaluation of the educational activity of education seekers of the KhNMU"

Organization of assessment of current control. Mastery of the topic (current control) is monitored in a practical session according to specific goals. The following tools are used to assess the level of training of bachelor of nursing: solving situational problems, interpreting and evaluating the results of laboratory studies, analyzing and evaluating the results of instrumental studies and parameters characterizing the functions of the human body, monitoring the acquisition of practical skills. The final class (PC) must be held according to the program of the educational component during the semester according to the schedule, during classes. The teacher of the academic group carries out admission of students. Evaluation is carried out according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

Rating	Evaluation criteria
"Perfectly"	the student of higher education shows special creative abilities, knows how to acquire knowledge independently, finds and processes the necessary information without the help of a teacher, knows how to use the acquired knowledge and skills to make decisions in non-standard situations, convincingly argues answers, independently reveals his own gifts and inclinations
"Very good"	the student of higher education has a fluent command of the studied amount of material, applies it in practice, freely solves exercises and problems in standard situations, independently corrects the mistakes made, the number of which is insignificant
"Fine"	the student of higher education knows how to compare, generalize, and systematize information under the guidance of a teacher; in general, independently apply it in practice; control one's own activities; to correct errors, including significant ones, to select arguments to support opinions
"Satisfactorily"	the student of higher education reproduces a significant part of the theoretical material, demonstrates knowledge and understanding of the main provisions; with the help of the teacher, he can analyze the educational material, correct errors, among which there are a significant number of significant ones
"Enough"	the student of higher education possesses educational material at a level higher than the elementary one, reproduces a significant part of it at the reproductive level
"Unsatisfactorily" with the possibility of retaking the semester control	the student of higher education possesses the material at the level of individual fragments, which constitute a small part of the educational material
"Unsatisfactorily" with mandatory repeated study of credit	the student of higher education possesses the material at the level of elementary recognition and reproduction of individual facts, elements, objects
In particul	ar, the criteria for evaluating practical skills in disciplines
"Perfectly"	the applicant of higher education corresponds to a high (creative) level of competence: the applicant of higher education shows special creative abilities, independently demonstrates the implementation of practical skills without errors and possesses systematic theoretical knowledge (knows the method of performing practical skills, indications and contraindications, possible complications, etc.) and has the ability to make decisions in non-standard situations.
"Fine"	the student of higher education independently demonstrates the implementation of practical skills, admitting some inaccuracies, which he quickly corrects, possesses theoretical knowledge (knows the methodology of performing practical skills, indications and contraindications, possible complications, etc.)
"Satisfactorily"	the student of higher education demonstrates the performance of practical skills, making some mistakes that can be corrected when

	corrected by the teacher, possesses satisfactory theoretical knowledge (knows the basic provisions of the methodology for performing practical skills, indications and contraindications, possible complications, etc.).
"Unsatisfactorily"	the student of higher education cannot independently demonstrate practical skills (performs them, making gross mistakes), does not possess a sufficient level of theoretical knowledge (does not know the methodology of performing practical skills, indications and contraindications, possible complications, etc.).

Recalculation of the average grade for the current educational activity into a multi-point scale is carried out in accordance with the "Instructions for evaluating the educational activity of bachelor of nursing..." or the teacher with the help of the ASU electronic journal automatically obtains the average grade (to the nearest hundredth) for ED.

Recalculation of the average grade for the current activity into a multi-point scale

(for disciplines ending with credit)

	200-
4-point	point
scale	scale
5	200
4.97-4.99	199
4.95-4.96	198
4.92-4.94	197
4.9-4.91	196
4.87-4.89	195
4.85-4.86	194
4.82-4.84	193
4.8-4.81	192
4.77-4.79	191
4.75-4.76	190
4.72-4.74	189
4.7-4.71	188
4.67-4.69	187
4.65-4.66	186
4.62-4.64	185
4.6-4.61	184
4.57-4.59	183
4.54-4.56	182
4.52-4.53	181
4.5-4.51	180
4.47-4.49	179
4.45-4.46	178
4.42-4.44	177
4.4-4.41	176
4.37-4.39	175
4.35-4.36	174
4.32-4.34	173
4.3-4.31	172
4.27-4.29	171
4.24-4.26	170

	200-
4-point	point
scale	scale
4.22-4,23	169
4.19-4.21	168
4.17-4,18	167
4.14-4.16	166
4.12-4,13	165
4.09-4.11	164
4.07-4.08	163
4.04-4.06	162
4.02-4.03	161
3.99-4.01	160
3.97-3.98	159
3.94-3.96	158
3.92-3.93	157
3.89-3.91	156
3.87-3.88	155
3.84-3.86	154
3.82-3.83	153
3.79-3.81	152
3.77-3.78	151
3.74-3.76	150
3.72-3.73	149
3.7-3.71	148
3.67-3.69	147
3.65-3.66	146
3.62-3.64	145
3.6-3.61	144
3.57-3.59	143
3.55-3.56	142
3.52-3.54	141
3.5-3.51	140
3.47-3.49	139

4-point	200-point
scale	scale
3.45-3.46	138
3.42-3.44	137
3.4-3.41	136
3.37-3.39	135
3.35-3.36	134
3.32-3.34	133
3.3-3.31	132
3.27-3.29	131
3.25-3.26	130
3.22-3.24	129
3.2-3.21	128
3.17-3.19	127
3.15-3.16	126
3.12-3,14	125
3.1-3,11	124
3.07-3.09	123
3.05-3.06	122
3.02-3.04	121
3-3.01	120
Less3	Insufficient

The maximum number of points that a bachelor of nursing can score for studying a discipline is 200 points, the minimum number of points is 120, which is the basis for enrolling in a discipline for a who has completed the study of a discipline and is placed in the record book "enrolled", and points are given for recognition from 120 to 200 and "enrolled".

Assessment of independent work of bachelor of nursing. The independent work of bachelor of nursing, which is provided by the topic of the lesson along with the classroom work, is evaluated during the current control of the topic in the corresponding lesson and during the assessment.

Assessment of individual tasks of a bachelor of nursing is carried out under the conditions of the performance of the teacher's tasks (report of an abstract at a practical session, a report with a presentation at a practical session, a report at scientific and practical conferences of the department, university, writing theses, articles, participation in the All-Ukrainian Olympiad). Points (up to 10) are added as incentives. Total points for current educational activity cannot exceed 120 points.

Performing one of the types of work:

- Conducting an examination of a demonstrative patient, and demonstrating the skills of using the analysis of laboratory examinations and preparing a review of the scientific literature on the case under study
- Preparation of a literature review according to one of the proposed for independent work

3.2.A list of questions for credit from the educational component "Fundamentals of instrumental diagnostics".

- 1. Define the concept of "extrasystole».
- 2. Define the concept of "atrial fibrillation and atrial flutter".
- 3. Define the concept of "ventricular tachycardia and ventricular fibrillation".
- 4. Define the concept of "atrioventricular blockade».
- 5. Define the concept of "ischemic heart disease».
- 6. Define the concept of "congenital heart defects».
- 7. Define the concept of "acquired heart defects».
- 8. Name the main signs of supraventricular extrasystole on the ECG
- 9. Name the main signs of ventricular extrasystole on the ECG
- 10. Name the main ECG signs of atrial flutter and fibrillation
- 11. Name the main ECG signs of ventricular flutter and fibrillation
- 12. Determination of hypertrophy of the left ventricle according to Echocardiography
- 13. Indications for tests with dosed physical activity.
- 14. Absolute and relative contraindications for tests with dosed physical activity.
- 15. The value of stress tests for determining prognosis and treatment tactics in patients with acute myocardial infarction
- 16. Indications and contraindications for endoscopic examination of the bronchi.
- 17. Methodology of endoscopic examination of bronchi.
- 18. Possible complications during endoscopic examination of the bronchi, ways of prevention and emergency care.
- 19. Name the main indicators of the function of external respiration.
- 20. Indications and contraindications for endoscopic examination of the gastrointestinal tract.
- 21. Preparation of the patient for FGDS and the method of its implementation.
- 22. Possible complications during endoscopic examination of the bronchi, ways of prevention and emergency care.
- 23. Assessment of the secretory function of the stomach using pH-metry.
- 24. Methodology of fractional duodenal probing
- 25. Preparation of the patient to be heldultrasound examination of the liver, gall bladder and pancreas.
- 26. Diagnostic capabilities of radionuclide methods of liver and pancreas research.
- 27. Preparation of the patient for excretory urography and retrograde pyelography. Methodology of their implementation.
- 28. Diagnostic capabilities of radionuclide methods of kidney research.

29. Determination of kidney function using radioisotope renography.

LIST OF SKILLS AND PRACTICAL SKILLS

- 1. Be able to register an electrocardiogram in 12 leads.
- 2. Be able to interpret the ECG of a patient with supraventricular and ventricular extrasystole.
- 3. Be able to interpret the ECG of a patient with atrial fibrillation and flutter.
- 4. Be able to interpret the ECG of a patient with supraventricular and ventricular paroxysmal rhythm disturbances.
- 5. Be able to interpret the ECG of a patient with atrioventricular and intraventricular conduction disorders.
- 6. Be able to determine ECG signs of myocardial ischemia.
- 7. To be able to determine the ECG signs of acute coronary syndrome with elevation and without elevation of the ST segment, myocardial infarction with Q wave and without Q wave.
- 8. Be able to interpret the results of tests with dosed physical activity.
- 9. Be able to interpret the results of an endoscopic examination of the bronchi.
- 10. Be able to prepare the patient for endoscopic examination of the bronchi.
- 11. Be able to interpret the results of determining the function of external breathing.
- 12. Be able to interpret the results of an endoscopic examination of the gastrointestinal tract.
- 13. Be able to prepare the patient for endoscopic examination of the bronchi.
- 14. To be able to prepare the patient to determine the secretory function of the stomach using pH-metry.
- 15. Be able to interpret the results of the assessment of the secretory function of the stomach using pH-metry.
- 16. Be able to prepare the patient for fractional duodenal sounding.
- 17. Be able to interpret the results of fractional duodenal sounding
- 18. Be able to interpret the results of ultrasound examination of the liver, gall bladder and pancreas.
- 19. Be able to interpret the results of radionuclide methods of liver and pancreas research.
- 20. Be able to prepare the patient for excretory urography and retrograde pyelography.
- 21. To be able to interpret the results of the study of kidney function using radioisotope renography.
- 22. Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination
 - **3.3. Control questions and tasks for independent work**Mastery of topics that are presented only for independent work is checked during the final class and exam.
- **3.4. Individual tasks** (the list with the determination of the number of points for their performance, which can be added as incentives) was approved at the department meeting:

At the request of the student of higher education, during the study of relevant topics, he can perform individual work, which is carried out outside of class time and, upon successful completion, is additionally evaluated by the teacher.

3.5. Other incentives (conditions for awarding additional points for various types of informal and informal activities, which may include conferences, scientific research, participation in surveys, symposia, etc.):

At the meeting of the department, a list of individual tasks was approved (participation with reports in conferences, professional Olympiads, preparation of analytical reviews with presentations with a plagiarism check) with the determination of the number of points for their performance, which can be added as incentives (no more than 10)

Points for individual tasks are awarded to the student of higher education once only by commission (commission - head of the department, head teacher, teacher of the group) only under the conditions of their successful completion and defense. In no case can the total sum of points for PND exceed 200 points.

3.6. Rules for challenging the assessment

In accordance with the general regulations and orders of the KhNMU

4. POLICY OF DISCIPLINE

Educational component requirements (the system of requirements and rules that the teacher presents to bachelor of nursing when studying the educational component). In order to achieve the learning goals and successfully complete the course, it is necessary: to join the work from the first day; regularly attend lectures; read the material in advance, before considering it in a practical session; not to be late or miss classes; come to the department dressed in a medical gown, have a change of shoes, have a stethoscope, a notebook, and a pen with you; perform all the necessary tasks and work every day; be able to work with a partner or as part of a group; ask for help and get it when you need it. Written and homework assignments must be completed in full and on time.

Academic mobility, interchangeability of credits (volume of 1 credit 30 hours) is provided. bachelor of nursing can discuss various tasks, but their implementation is strictly individual.

<u>Attendance and behavior</u> Attending lectures and practical classes by bachelor of nursing is mandatory.bachelor of nursing are not allowed to be late for lectures and practical classes.

During the lecture class, bachelor of nursing are recommended to keep a summary of the class and maintain a sufficient level of silence. Asking questions to the lecturer is absolutely normal.

<u>Use of electronic gadgets</u> allowed only with permission of the teacher. Copying, use of various software tools, hints, use of a mobile phone, tablet or other electronic gadgets during class are not allowed.

<u>Recommendations for successful completion of the discipline</u> (activity of bachelor of nursing during practical classes, performance of the required minimum of educational work). Practical classes include:

Active participation during the discussion in the audience, bachelor of nursing should be ready to understand the material in detail, ask questions, express their point of view, discuss. During the discussion, the following are important:

- respect for colleagues
- tolerance for others and their experiences,
- receptiveness and impartiality,
- the ability to disagree with an opinion, but respect the personality of the opponent,
- thorough reasoning of one's opinion and the courage to change one's position under the influence of evidence,
- self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on his own thoughts and emotions,
 - mandatory acquaintance with primary sources.

A creative approach in its various manifestations is welcome. Applicants of higher education are expected to be interested in participating in city, all-Ukrainian and international conferences, competitions and other events related to the subject profile.

<u>Incentives and penalties</u> (additional points for conferences, research, editing, advice, participation in surveys). Assessment of individual tasks of a student of higher education is carried out under the conditions of the performance of the teacher's tasks (report of an abstract at a practical session, a report with a presentation at a practical session, a report at scientific and practical conferences of the department, university, writing theses, articles, participation in the All-Ukrainian Olympiad). Points (up to 10) are added as incentives.

<u>Safety equipment</u>. At the first lesson of the course, the basic principles of labor protection will be explained by means of appropriate instruction. Everyone is expected to know where the nearest exit to the audience is, where the fire extinguisher is, how to use it, etc.

The procedure for informing about changes in the syllabus etc. The development, updating and approval of the syllabus of the educational component is carried out every academic year. Mandatory placement on the website of KhNMU in the profile of the "Medicine" educational program by June 30 of the current academic year for the next academic year;

5. ACADEMIC INTEGRITY

<u>Academic Integrity Policy</u> (including responsibility for violations of academic integrity). Observance of academic integrity by students of education involves:

- ✓ Independent performance of educational tasks, tasks of current and final control of learning results (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- ✓ Links to sources of information in the case of using ideas, developments, statements, information:
- ✓ Compliance with the norms of the legislation on copyright and related rights;
- ✓ Providing reliable information about the results of one's own (scientific, creative) activities, used research methods and sources of information.

The department of propaedeutics of internal medicine No. 2 and nursing supports zero tolerance for plagiarism. A desire to constantly improve one's own awareness in academic writing is expected from the student of higher education. In the first classes, information activities will be held on what exactly is considered plagiarism and how to correctly conduct a research and scientific search.

<u>Policy regarding persons with special educational needs</u>. Bachelor of nursing with special needs must meet with the teacher or notify him before the start of classes, at the request of the student of higher education, this can be done by the head of the group.

6. RECOMMENDED LITERATURE

Main:

- 1. Internal Medicine. Textbook: In 3 volumes Volume 1/ K.M. Amosova, O.Ya. Babak, V.M. Zaitseva and others; Under the editorship Prof. K.M. Amosova. K.: Medicine, 2008. -1056 p.
- 2. Propaedeutics of internal diseases. Textbook / V.F. Moskalenko. I.I. Sakharchuk, P.F. Dudka and others; Under the editorship member-core of the Academy of Medical Sciences of Ukraine, prof. V.F. Moskalenko, Prof. I.I. Sakharchuk K.: Kyga plus, 2007 632 p.
- 3. Ischemic heart disease Classification. Principles of prevention and treatment / Lutai M.I., Parkhomenko O.M., Shumakov V.O. K.: Morion, 2002. 48 p.
- 4. Laboratory and instrumental diagnostics of diseases of internal organs. Handbook for doctors and those who acquire higher education / G.E. Roitberg, A.V. Strutynskyi. M.: Bynom-press, 2005. 678 p.
- 5. Electrocardiography. Teaching manual / V.V. Murashko, A.V. Strutynskyi. M.: Medicine, 2007. 320 p.
- 6. Strutynsky A.V. / Echocardiogram: analysis and interpretation. Educational manual. M.: Medicine, 2007. 208 p.
- 7. Order of the Ministry of Health of Ukraine No. 436 dated 33.07.06 "On the approval of protocols for the provision of medical care in the specialty "Cardiology".
- 8. Order of the Ministry of Health of Ukraine No. 128 dated 19.03.2007 "On approval of protocols for the provision of medical care in the specialty "Pulmonology".
- 9. Order of the Ministry of Health of Ukraine No. 593 dated 02.12.2004 "On the approval of protocols for the provision of medical care in the specialty "Nephrology".

Additional:

- 1. M.S. Kushakovsky / Arrhythmias of the heart. Guide for doctors S.-P.: Foliant, 1999. 638 p.
- 2. Internal diseases. System of organs of digestion Teaching manual / V.V. Murashko, A.V. Strutynskyi. M.: Bynom-press, 2007. 560 p.
- 3. Internal diseases. Cardiovascular system / G. E. Roitberg, A. V. Strutynsky M.: Bynom-press, 2007. 856 p.
- 4. Internal diseases. System of breathing organs / Roitberg G.E., Strutynskyi A.V. . M.: Bynompress, 2005. 464 p.
- 5. Diseases of the heart: Guide for doctors / under the editorship. R.G. Ohanova, I.G. Fominoy. M.: Lyterra, 2006. 1328 p.