MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Propedeutics of Internal Medicine №2 and Nursing

Academic year 2024-2025

SYLLABUS OF THE EDUCATIONAL COMPONENT
Clinical pharmacology with toxicology

Normative educational component
The format of the educational component is full-time
Field of knowledge 22 "Health care"
Specialty "223 "Nursing"
Educational and professional program "Nursing"
First (bachelor's) level of higher education
Fourth year (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

Acting Head of the Department

_____Associate Prof. Pionova O. M.
(signature) (surname and initials)

Approved by methodical commission of KhNMU on problems of the therapeutic profile

Protocol of
August 25, 2022 No. 1

Head of commission

_____Professor Kravchun P.P
(signature) (surname and initials)

SILOBUS DEVELOPERS:

1. Khimich T.Y., Associate Professor of the Department of PVM #2 and Nursing, Associate Professor, PhD in Medicine.

2. Pionova O. M., Associate Professor, Associate Professor of the Department of PVM #2 and Nursing, Associate Professor, PhD in Medicine.

3. Krasovska K. O., Associate Professor of the Department of PVM №2 and Nursing, Associate Professor, Ph.D.

DATA ON TEACHERS WHO TEACH THE EDUCATIONAL COMPONENT

Surname, name, patronymic, position, academic title, academic degree
Pionova O.M. Associate Professor of the Department of PSM №2 and Nursing, Associate Professor, PhD.
Professional interests: therapy, pulmonology,
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Yaroshchuk Alina Vitaliivna Assistant of the Department of PVM № 2 and Nursing, Master of Nursing
Professional interests: nursing
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Information about consultations Face-to-face consultations: according to the department's schedule at the department's premises - regional clinical hospital by prior arrangement. Online consultations: by prior arrangement with the teacher using the resources of the Moodle system. (http://31.128.79.157:8083/login/index.php)
Location. Venue for lectures and practical classes: lecture hall and classrooms of the Department of Propedeutics of Internal Medicine №2 and Nursing, 3 Trinkler St.
Classes: Monday, Tuesday, Wednesday, Thursday, Friday (900-1150/13 20-1710 according to the schedule);

INTRODUCTION

The syllabus of the educational component "Clinical Pharmacology with Toxicology" is compiled in accordance with the educational and professional programme (hereinafter - EPP) "Nursing" and the Standard of Higher Education of Ukraine (hereinafter - Standard), first (bachelor's) level, field of knowledge 22 "Health Care", specialty "Nursing"

Description of the educational component (abstract) "Clinical Pharmacology with Toxicology" is the basis for the block of clinical disciplines that provide professional and practical training, which studies the classification of drugs by major pharmacological groups and the belonging of drugs to them, the main clinical and pharmacological characteristics of drugs; rules for the accounting and safe storage of potent, poisonous, intoxicating and narcotic drugs; principles of prescriptions for various forms of drugs; principles of choosing the most effective and safe

The subject of study of the educational component is a set of theoretical and practical issues aimed at mastering the basic clinical and pharmacological characteristics of medicines; rules for the accounting and safe storage of potent, poisonous, intoxicating and narcotic drugs; principles of choosing the most effective and safe medicines for diseases of internal organs; side effects and toxic effects of drugs and measures to prevent their occurrence; principles of emergency care in acute conditions.

The purpose of the educational component "Clinical Pharmacology with Toxicology" is to form the basis of clinical thinking and acquire professional competencies in the correct choice of the most effective and safe medicines for diseases of internal organs; the ability to analyse side effects and toxic effects of drugs and measures to prevent their occurrence; emergency care in acute conditions and poisoning.

Prerequisites and co-requisites of the discipline in accordance with the model curriculum, the study of the educational component "Clinical Pharmacology with Toxicology" is carried out when the applicant for higher education has acquired relevant knowledge of the main basic disciplines: medical biology, medical and biological physics, human anatomy, physiology, biological and bioorganic chemistry, medical chemistry, pathomorphology and pathophysiology, "Examination and assessment of human health", with which the discipline programme is integrated. In its turn, "Clinical Pharmacology

with Toxicology" forms the basis for the study of the next clinical discipline - clinical nursing in internal medicine, which involves "vertical" integration with these educational components and the development of skills to apply knowledge of the basic methods of examination of the patient in the process of further education and professional activity.

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

1. AIM AND OBJECTIVES OF THE EDUCATIONAL COMPONENT

1.1. The purpose of studying the educational component is to form the basis of clinical thinking and acquire professional competencies in the correct selection of the most effective and safe medicines for diseases of internal organs; the ability to analyse the side and toxic effects of drugs and measures to prevent their occurrence; emergency care in acute conditions and poisoning.

1.2. The main objectives of the study of the educational component "Clinical Pharmacology with Toxicology" are

- to know the classification of medicines by major pharmacological groups and the belonging of drugs to them;
- know the main clinical and pharmacological characteristics of medicines;
- to issue prescriptions for various forms of medicines and requirements for medicines for healthcare facilities;
- know the rules of accounting and safe storage of potent, poisonous, intoxicating and narcotic drugs;
- to be able to choose the most effective and safe medicinal product for diseases of a certain nature;
- be able to analyse side and toxic effects of medicines and measures to prevent their occurrence;
- provide emergency care in acute conditions and poisoning;
- to be able to navigate the issues of incompatibility of medicines "in Vivo" and "in Vitro" in order to prevent undesirable consequences.

1.3. Competences and learning outcomes contributed to by the educational component (relationship with the normative content of higher education training formulated in terms of learning outcomes in the EPP and the Standard).

1.3.1 The study of the educational component ensures that higher education students acquire **competencies:**

Integral:

Competences and learning outcomes.

In accordance with the requirements of the standard, the educational component ensures that higher education students acquire **competences:**

- *Integral:*

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

- *general:*

3. Ability to think abstractly, analyse and synthesise
4. Ability to apply knowledge in practical situations
5. Knowledge and understanding of the subject area and understanding of professional activities
6. Ability to communicate in the state language both orally and in writing
10. Ability to make informed decisions

- *special (professional, subject):*

1. Ability to apply professional and legal standards in everyday professional practice.
2. Ability to recognise and interpret signs of health and its changes, illness or disability (assessment/diagnosis), disability and identify patients' problems with various diseases and conditions.

3. Ability to meet the needs of the patient/client during different periods of the whole life (including the dying process) by planning, assisting and performing nursing interventions, evaluating and adjusting individual care plans created in collaboration with the patient/client, carers, family members and other health and social workers.
4. Application of professional skills (abilities), medical means, interventions and actions to ensure the patient/client's dignity, privacy (intimacy), confidentiality, protection of their rights, physical, psychological and spiritual needs on the basis of transcultural nursing, tolerant and nonjudgemental behaviour.
5. The ability to effectively apply a set of nursing skills (abilities), medical means, interventions and actions to provide care based on a holistic approach, taking into account the satisfaction of the patient's needs for comfort, nutrition, personal hygiene and the person's ability to meet their daily needs.
6. The ability to effectively apply a set of professional skills (abilities), medical means, interventions and actions in assessing the functional status of patients/clients, preparing them for diagnostic tests and taking biological material for laboratory tests.
7. Preservation of the specialist's own health when providing care, performing manipulations and procedures, moving and transporting a patient/client.
8. Preventive activities of the nurse aimed at maintaining and improving health, preventing diseases and informing and educating the patient and his/her family members.
12. Ability to navigate in determining the group affiliation of medicines, features of their pharmacokinetics and pharmacodynamics.
13. 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 higher education students acquire the following **programme learning outcomes:**
PLO 13. Prescribe, store and use pharmaceuticals.

1.3.3 The study of the educational component ensures that the student acquires the following **social skills (Soft skills):**
- Communication skills
- Ability to work in a team, communicate with people and manage conflicts
Ability to assess and analyse situations
- Ability to organise, plan and effectively execute projects and tasks
- Ability to perform work professionally and responsibly
- Ability to demonstrate emotional intelligence in interactions with colleagues, clients, and supervisors, a sense of tact and timely response.

INFORMATION SCOPE OF THE EDUCATIONAL COMPONENT
2.1 Description of the educational component

<table>
<tr><td rowspan="2">Name of indicators</td><td rowspan="2">Field of knowledge, field of study, educational qualification level</td><td>Characteristics of the educational component</td></tr>
<tr><td>full-time form of study</td></tr>
<tr><td>Number of credits –4</td><td>Field of study
22 "Health care"</td><td>Normative</td></tr>
<tr><td rowspan="3">Total number of hours - 120</td><td rowspan="3">Specialty: 223 "Nursing"</td><td>Year of preparation:</td></tr>
<tr><td>4</td></tr>
<tr><td>Semester</td></tr>
</table>

		8
		Lectures
Hours for full-time study: classroom -50 of independent work by a higher education applicants -70	Educational qualification level: First (bachelor's)	18
		Practical
		32 hours.
		Independent work
		70 hours.
		Individual tasks.
		Type of control: exam

2.2.1 Lectures

№	Topic	Hours	Type of lecture
1	Subject and content of clinical pharmacology. Basic principles of clinical pharmacokinetics and pharmacodynamics. Interaction of drugs. Side effects of drugs. Correction of undesirable effects of drugs in combination pharmacotherapy.	**2**	thematic
2	Pharmacotherapy of respiratory diseases. Pneumonia. Influenza. Tuberculosis. Bronchial asthma. Clinical pharmacology of antibiotics and glucocorticosteroids.	**2**	thematic
3	Pharmacotherapy of diseases of the cardiovascular system. CORONARY HEART DISEASE. Arterial hypertension. Antianginal and antihypertensive drugs.	**2**	thematic
4	Pharmacotherapy of diseases of the cardiovascular system. Heart failure. Arrhythmias. Cardiotonic drugs.	**2**	thematic
5	Pharmacotherapy of nervous and mental diseases. Principles of pharmacotherapy of pain syndrome	**2**	thematic
6	Pharmacotherapy of gastrointestinal organs: diseases of the stomach and intestines, pancreas and hepatobiliary system.	**2**	thematic
7	Pharmacotherapy of homeostasis and haemocoagulation, blood diseases. Pharmacotherapy in the regulation of water-salt metabolism and acid-base balance.	**2**	thematic
8	Pharmacotherapy of endocrine diseases: diabetes mellitus, thyroid diseases.	**2**	thematic
9	Pharmacotherapy of emergency conditions in acute intoxication with drugs and poisons	**2**	thematic
	Total	**18**	

2.2.2 Seminar classes - not included in the programme

2.2.3 Practical classes

№	Topic	Number of hours	Teaching methods	Forms of control
1	Drug interaction. Influence of various factors on the effect of medicines. Side effects of medicines.	2	narration-explanation, conversation, demonstration, presentation,	oral questioning (individual and frontal); written questioning; test control; creative

			videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic
2	Pharmacotherapy of respiratory diseases: bronchitis, bronchial asthma. Clinical pharmacology of glucocorticosteroids and brochodilators.	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic
3	Pharmacotherapy of respiratory diseases: pneumonia, influenza, tuberculosis. Clinical pharmacology of antibiotics, antibacterial and antiviral agents.	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic

			partnership (learning in pairs),	
4	Pharmacotherapy of diseases of the cardiovascular system: CORONARY ARTERY DISEASE. Atherosclerosis. Arterial hypertension. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical and pharmacological approach to the choice of drugs.	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic
5	Pharmacotherapy of diseases of the cardiovascular system: Arterial hypertension. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical pharmacological approach to the choice of medicines.	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic
6	Pharmacotherapy of diseases of the cardiovascular system: Arrhythmias. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical pharmacological approach to the choice of medicines.	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on

			game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	a given topic
7	Pharmacotherapy of diseases of the cardiovascular system: Heart failure. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical pharmacological approach to the selection of medicines	2	narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),	oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic
8	Pharmacotherapy of CNS diseases (depressant action).Pharmacotherapy of CNS diseases (excitatory action).Pharmacotherapy of analgesics.	2	-«-	-«-
9	Clinical and pharmacological characteristics of anti-inflammatory and immunomodulatory drugs.	2	-«-	-«-
10	Pharmacotherapy of blood diseases, homeostasis and haemocoagulation disorders.	2	-«-	-«-
11	Pharmacotherapy in the regulation of water-salt metabolism and acid-base balance.	2	-«-	-«-
12	Pharmacotherapy of the gastrointestinal tract: diseases of the stomach and intestines, pancreas and liver. .	2	-«-	-«-
13	Pharmacotherapy of gastrointestinal organs: pancreas and liver.	2	-«-	-«-
14	Pharmacotherapy of endocrine diseases: diabetes mellitus.	2	-«-	-«-

15	Pharmacotherapy of endocrine diseases: thyroid gland diseases.	2	-«-	-«-
16	Pharmacotherapy of emergency conditions in acute intoxication with drugs and poisons	2	-«-	-«-
	Total hours	32		

2.2.4. Laboratory classes - not provided by the programme

2.2.5. Independent work

№	Topic	Number of hours	Teaching methods	Forms of control
1	Interaction of drugs (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
2	The influence of various factors on the action of drugs. Side effects of drugs. (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
3	General concepts of symptoms and syndromes of respiratory diseases. Pharmacotherapy of respiratory diseases: bronchitis, influenza.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
4	Pharmacotherapy of respiratory diseases: pneumonia, tuberculosis (form of work - abstract)	4	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
5	Clinical pharmacology of antibiotics, antibacterial and antiviral drugs.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
6	General concepts of symptoms and syndromes of respiratory diseases. Pharmacotherapy of respiratory diseases: bronchial asthma.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
7	Clinical pharmacology of glucocorticosteroids.	2	video clips, video films, independent	abstracts; annotations; self-control;

			work with information sources.	report; speech on a given topic
8	General concepts of symptoms and syndromes of diseases of the cardiovascular system. Pharmacotherapy of diseases of the cardiovascular system. Coronary heart disease (form of work - abstract)	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
9	Atherosclerosis. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical pharmacological approach to the choice of drugs.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
10	Arterial hypertension. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical and pharmacological approach to the choice of medicines. .	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
11	General concepts of symptoms and syndromes of diseases of the cardiovascular system. Pharmacotherapy of diseases of the cardiovascular system. Heart failure. Principles of clinical and pharmacological approach to the choice of medicines.	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
12	Pharmacotherapy of arrhythmias. Clinical pharmacology of drugs used in cardiology practice. Principles of clinical and pharmacological approach to the choice of drugs	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
13	Загальні уявлення про симптоми та синдроми захворювань центральної нервової системи. Фармакотерапія захворювань ЦНС (пригнічуючої дії). (форма роботи - реферат)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
14	General concepts of symptoms and syndromes of diseases of the central nervous system. Pharmacotherapy of diseases of the central nervous system (excitatory action).	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
15	Pharmacotherapy of painkillers.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic

16	General concepts of symptoms and syndromes of diseases of the digestive system. Pharmacotherapy of diseases of the digestive system (form of work - abstract)	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
17	Clinical and pharmacological characteristics of anti-inflammatory drugs	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
18	Clinical and pharmacological characteristics of immunomodulatory drugs (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
19	Pharmacotherapy in the regulation of water-salt metabolism (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
20	Clinical and pharmacological characteristics of acid-base balance (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
21	General concepts of symptoms and syndromes of diseases of the gastrointestinal tract. Pharmacotherapy of the gastrointestinal tract: stomach diseases (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
22	General concepts of symptoms and syndromes of diseases of the gastrointestinal tract. Pharmacotherapy of the gastrointestinal tract: diseases of the intestines (form of work - abstract)	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
23	General concepts of symptoms and syndromes of diseases of the gastrointestinal tract. Pharmacotherapy of the gastrointestinal tract: liver (form of work - abstract)	3	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
24	General concepts of symptoms and syndromes of diseases of the gastrointestinal tract. Pharmacotherapy of gastrointestinal organs: pancreas.	2	video clips, video films, independent work with information	abstracts; annotations; self-control; report; speech on a given

			sources.	topic
25	Pharmacotherapy of homeostasis and haemocoagulation disorders.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
26	Pharmacotherapy of haemocoagulation disorders (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
27	General concepts of symptoms and syndromes of diseases of the endocrine system. Pharmacotherapy of endocrine diseases: diabetes mellitus.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
28	General concepts of symptoms and syndromes of diseases of the endocrine system. Pharmacotherapy of endocrine diseases: thyroid gland diseases (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
29	General concepts of symptoms and syndromes of blood diseases.Pharmacotherapy of anaemia.	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
30	General concepts of symptoms and syndromes of blood diseases.Pharmacotherapy of leukaemia. (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
31	Pharmacotherapy of emergencies in acute intoxication with drugs and poisons (form of work - abstract)	2	video clips, video films, independent work with information sources.	abstracts; annotations; self-control; report; speech on a given topic
	Total hours	70		

Teaching methods (list only those used in teaching the discipline): lecture, narration-explanation, conversation, demonstration, presentation, videos, videos, discussion, round table, business, role-playing, simulation game, modelling processes and situations, delegation of authority, case method, debate, sparring partnership (learning in pairs),

Control methods:

Current control: oral questioning (individual and frontal); written questioning; test control; creative tasks; individual tasks; abstracts; annotations; mutual control; self-control; report; speech on a given topic;

Final control: exam

3. EVALUATION CRITERIA

3.1 Evaluation of the success of education of applicants for education is carried out on the basis of the current "Instruction on evaluation of educational activities of applicants for education of KhNMU"

Organisation of assessment of current control. Mastering the topic (current control) is controlled in a practical lesson in accordance with specific goals. The following means of assessing the level of training of higher education applicants are used: solving situational problems, interpreting and evaluating the results of laboratory tests, analysing and evaluating the results of instrumental studies and parameters that characterise the functions of the human body, controlling the acquisition of practical skills. The final examination (FE) must be held in accordance with the programme of the educational component during the semester according to the schedule, during classes. The teacher of the academic group is responsible for accepting the exam. Grading is based on the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

Criteria for assessing the results of learning activities of students in the disciplines

Assessment	Assessment criteria
"Excellent"	The applicant for higher education shows special creative abilities, is able to acquire knowledge independently, finds and processes the necessary information without the help of a teacher, is able to use the acquired knowledge and skills to make decisions in non-standard situations, convincingly argues answers, independently reveals his/her own talents and inclinations
"Very good"	The applicant for higher education is fluent in 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
"Good"	The higher education applicant is able to compare, summarize, systematize information under the guidance of a teacher; generally apply it independently in practice; control their own activities; correct errors, including significant ones, select arguments to support opinions
"Satisfactory"	The applicant for higher education reproduces a significant part of the theoretical material, shows knowledge and understanding of the main provisions; with the help of the teacher can analyze the educational material, correct errors, among which there are a significant number of significant
"Sufficient"	The higher education applicant has knowledge of educational material at a level higher than the primary level, reproduces a significant part of it at the reproductive level
"Unsatisfactory"	with the possibility of retaking the semester control The higher education student has the material at the level of individual fragments that make up a small part of the educational material
"Unsatisfactory"	with mandatory re-study for credit The higher education applicant has the material at the level of elementary recognition and reproduction of individual facts, elements, objects
In particular, criteria for assessing practical skills in disciplines	

"Excellent"	The applicant for higher education corresponds to a high (creative) level of competence: the applicant for higher education shows special creative abilities, demonstrates the performance of practical skills without errors and has systematic theoretical knowledge (knows the methodology for performing practical skills, indications and contraindications, possible complications, etc.
"Good"	The higher education applicant independently demonstrates the performance of practical skills, making some inaccuracies that are quickly corrected, has theoretical knowledge (knows the methodology for performing practical skills, indications and contraindications, possible complications, etc.)
"Satisfactory"	The higher education applicant demonstrates the performance of practical skills, making some mistakes that can be corrected by the teacher, has satisfactory theoretical knowledge (knows the basic provisions of the methodology for performing practical skills, indications and contraindications, possible complications, etc.)
"Unsatisfactory"	The student cannot demonstrate practical skills independently (performs them, making gross mistakes), does not have a sufficient level of theoretical knowledge (does not know the methodology for 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 average grade (to the nearest hundredth) for the teacher with the help of the ASU electronic journal automatically obtains ED.

Conversion of the average grade for the current control into a multi-point scale
(for disciplines that end with a differential test)

4-point scale	120-point scale	4-point scale	120-point scale
5	120	3.91-3,94	94
4.95-4,99	119	3.87-3,9	93
4.91-4,94	118	3.83- 3,86	92
4.87-4,9	117	3.79- 3,82	91
4.83-4,86	116	3.74-3,78	90
4.79-4,82	115	3.7- 3,73	89
4.75-4,78	114	3.66- 3,69	88
4.7-4,74	113	3.62- 3,65	87
4.66-4,69	112	3.58-3,61	86
4.62-4,65	111	3.54- 3,57	85
4.58-4,61	110	3.49- 3,53	84
4.54-4,57	109	3.45-3,48	83
4.5-4,53	108	3.41-3,44	82
4.45-4,49	107	3.37-3,4	81
4.41-4,44	106	3.33- 3,36	80
4.37-4,4	105	3.29-3,32	79
4.33-4,36	104	3.25-3,28	78
4.29-4,32	103	3.21-3,24	77
4.25- 4,28	102	3.18-3,2	76
4.2- 4,24	101	3.15- 3,17	75
4.16- 4,19	100	3.13- 3,14	74

4.12- 4,15	99	3.1- 3,12	73
4.08- 4,11	98	3.07- 3,09	72
4.04- 4,07	97	3.04-3,06	71
3.99-4,03	96	3.0-3,03	70
3.95- 3,98	95	Less than 3	Not enough

The minimum number of points that a higher education applicant must score for current activities while studying a section is 70 points, the maximum number of points is 120 points.

Assessment of independent work of higher education students. The independent work of the higher education applicant is the main one for the internship.

Evaluation of individual tasks of the applicant for higher education is carried out under the conditions of fulfillment of the teacher's tasks. Points (no more than 10) are added as incentives. The total amount of points for the current educational activity may not exceed 120 points.

Performing one of the types of work:

- Examination of an exemplary patient and selection of the most effective and safe treatment for diseases of a certain nature, preparation of a review of scientific literature on the case under study
- Prepare a literature review on one of the proposed topics
- Prepare prescriptions for different forms of medicines
- Analyse side and toxic effects of medicines and measures to prevent their occurrence

The organisation of the final control is an exam.

Admission to the exam is determined by the points of current academic performance, namely: min - 70, max - 120 points. The exam is conducted by the teachers of the department who are appointed to the examination session (professor or associate professor of the department), or by the commission in case of disagreement of the higher education student with the results of certification in accordance with the schedule of the examination session.

An exam in a discipline is a process during which the following are checked

- level of theoretical knowledge;
- development of creative thinking;
- skills of independent work;
- competences - the ability to synthesise the knowledge gained and apply it in solving practical problems.

The exam assesses the mastery of practical skills and theoretical knowledge based on the tickets prepared by the department, which include all topics of the discipline

Assessment of theoretical knowledge and practical skills, if they are presented in one ticket

Number of ticket	«5»	«4»	«3»	Answers to tickets that include theoretical and practical parts of the discipline	For each answer, a higher education student receives from 10 to 16 points, which corresponds to: "5" - 16 points; "4" - 13 points; "3" - 10 points.
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

The exam is graded from -50 to -80 points.

Technology of assessment of the discipline

Assessment of the results of studying disciplines is carried out immediately after the exam. The

grade in the discipline is determined as the sum of the points for the **IPA** and **the exam** and ranges from min - 120 to max - 200.

Grades are assigned on a 200-point scale,
four-point (national) scale and ECTS scale

Grading on a 200-point scale	Grade on the ECTS scale	Grade on the four-point (national) scale
180–200	A	Excellent
160–179	B	Good
150–159	C	Good
130–149	D	Satisfactory
120–129	E	Satisfactory
Less 120	F, Fx	Unsatisfactory

A grade in a discipline is assigned only to higher education students who have passed all final examinations and differential tests.

Higher education applicants who have not fulfilled the requirements of the discipline curriculum are assigned a grade of FX if they were admitted to take a differentiated test or exam but did not pass it. Grade F is assigned to higher education students who are not allowed to take a differentiated test or exam.

Grades **"FX"** or **"F"** ("unsatisfactory") are assigned to higher education students who are not credited with the study of a discipline, the form of control of which is a test.

After completion of the discipline, the person responsible for organizing the educational and methodological work at the department or the teacher assigns the appropriate grade to the higher education student according to the scales (Table 3) in the academic record book and fills in the following information

If the exam is not passed, the dates of retakes are set during the holidays, before the beginning of the next semester.

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1.3.2. Exam questions :

1. Subject and tasks of clinical pharmacology.
2. The essence of clinical pharmacokinetics, pharmacodynamics and pharmacodynamics.
3. Complications of pharmacotherapy and its types.
4. Interaction of drugs (pharmaceutical, pharmacokinetic, pharmacodynamic and physiological).
5. Side effects of medicines (specific, toxic, allergic reactions, violation of immunobiological properties of the body, idiosyncrasy, drug dependence, withdrawal syndrome, withdrawal symptoms).
6. Preventive and therapeutic correction of undesirable effects of drugs.
7. Types of correction (regime, diet, medication).
8. Dependence of the effect of drugs on their ratio to the time and nature of nutrition, quality and quantity of food. The effect of fasting on the effect of drugs.

9. Features of pharmacokinetics of pharmacodynamics in different age periods.
10. Chronopharmacology.
11. The importance of daily (circadian) rhythms in the action of drugs.
12. Types of combined pharmacotherapy.Prevention and elimination of undesirable effects of drugs in their combined use.
13. The effect of drugs when they are reintroduced.
14. Means for inhalation and non-inhalation anaesthesia. Types and stages of anaesthesia. Pharmacotherapeutic agents for multicomponent anaesthesia. The concept of premedication. Complications during anaesthesia. Signs of toxic effects. Treatment of poisoning.
15. Sleeping pills. Classification. Features of pharmacokinetics, signs of toxicity, treatment of poisoning, clinical recommendations.
16. Antiepileptic drugs. Clinical pharmacotherapy of various forms of epilepsy, side effects, signs of toxicity. Treatment of poisoning, clinical recommendations.
17. Antiparkinsonian drugs. Signs of toxicity, treatment of poisoning, clinical recommendations.
18. Ethyl alcohol. Features of pharmacokinetics and pharmacodynamics. Signs of toxic effects. Treatment of acute and chronic poisoning.
19. Narcotic analgesics. Mechanism of action. Indications and contraindications for use. Acute intoxication. Treatment. Signs of chronic poisoning, treatment.
20. Non-narcotic analgesics. Mechanism of action. Pharmacological effects. Signs of toxicity, treatment of poisoning.
21. Neuroleptics. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations. The concept of neuroleptic analgesia.
22. Tranquillisers. Pharmacological and side effects. Application, signs of toxicity. Treatment of poisoning, clinical recommendations.
23. Sedatives. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
24. Normotonic drugs. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
25. Antidepressants. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
26. Psychomotor stimulants. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
27. Analeptics. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
28. General tonics. Application.
29. Nootropic drugs. Pharmacological and side effects. Application. Signs of toxicity. Treatment of poisoning, clinical recommendations.
30. Local anaesthetic agents. Mechanism of action. Application, signs of toxicity. Treatment of poisoning.
31. Astringents. Application, side effects.
32. Enveloping agents, application.
33. Absorbent agents, their use.
34. Irritating agents. Application.
35. M-cholinomimetics. Signs of toxicity. Treatment of poisoning.
36. M, H-cholinomimetics.
37. Anticholinesterase substances. Cholinesterase reactivators. Signs of toxicity. Treatment of poisoning
38. M-cholinoblockers. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
39. Ganglioblockers. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
40. Muscle relaxants. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.

41. M,N-cholinergic antagonists. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
42. £- adrenomimetics
43. £,ß- adrenomimetics. Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning
44. ß1ß2- adrenomimetics Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
45. £-adrenergic blockers Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
46. ß-address brokers. Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
47. Antispasmodics Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
48. Respiratory stimulants. Their use in different types of asphyxia. Comparative characteristics.
49. Antitussives Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning.
50. Expectorants. Secretomotor and mucolytic. Classification. Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning
51. Bronchodilators Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Clinical recommendations.
52. Drugs used in pulmonary oedema. Mechanism of action. Treatment of poisoning
53. Cardiac glycosides. Mechanism of action. Therapeutic tactics of glycoside therapy. Intoxication syndromes, their prevention and treatment. Clinical recommendations.
54. Non-glycoside cardiotonic drugs. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning
55. Antiarrhythmic drugs Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Emergency care in case of cardiac arrest. Treatment of poisoning. Clinical recommendations.
56. Antianginal agents Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Emergency care in case of cardiac arrest. Treatment of poisoning. Clinical recommendations.
57. Complex pharmacotherapy of myocardial infarction. Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Emergency care in case of cardiac arrest. Treatment of poisoning. Clinical recommendations.
58. Drugs that improve cerebral circulation Mechanism of action .Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Emergency care in case of cardiac arrest. Treatment of poisoning. Clinical recommendations.
59. Antihypertensive drugs. Effect of drugs on different parts of vascular tone regulation. Principles of selection of antihypertensive drugs. Undesirable side effects. Signs of toxicity. Treatment. Emergency care in case of hypertensive crisis.
60. Drugs used in vasomotor collapse Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
61. Clinical pharmacology of hypocholesterolaemic and hypolipoproteinemic agents.
62. Angioprotective agents. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
63. Clinical pharmacology of drugs that regulate water-salt metabolism and acid-base balance (diuretics, plasma substitutes). Biological role of minerals. Amino acids. Detoxification solutions.
64. Drugs that affect appetite. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.

65. Enzyme preparations that improve digestion.
66. Drugs that affect the tone and motility of the digestive system.
67. Antacid agents. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
68. Antiulcer agents. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
69. Antiemetics and antiemetics.
70. Laxatives. Classification. Mechanism of action. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
71. Choleretic agents. Choleretic agents. Choleretic agents. Hepatoprotectors. Choleretic drugs. The main directions of pharmacotherapy of liver and biliary tract diseases. Pharmacotherapy of emergency conditions in diseases of the abdominal cavity.
72. Drugs used in case of excretory function disorders of the pancreas. Pharmacotherapy of the chronic phase of pancreatitis and in the acute phase. Assistance in pancreatic coma.
73. Drugs used in iron deficiency anaemia.
74. Drugs used in hyperchoric anaemia.
75. Stimulants of leukopoiesis.
76. Hemostatics: general action, local action and herbal.
77. Direct and indirect anticoagulants.
78. Fibrinolytic agents.
79. Antiplatelet agents.
80. Drugs that affect thrombosis. Mechanism of action of drugs of each group. Pharmacological and side effects. Clinical recommendations.
81. Clinical pharmacology of drugs affecting the myometrium.
82. Hormonal drugs of the anterior, middle and posterior pituitary gland.
83. Preparations of the thyroid and parathyroid glands.
84. Insulins. Oral antidiabetic drugs.
85. Glucocorticoids.
86. Mineralocorticoids.
87. Estrogenic drugs of steroid and non-steroidal structure. Anti-estrogenic drug.
88. Gestagenic drugs and their analogues.
89. Combined oral contraceptives. Monohormonal contraceptives. Combined, progestinogenic drugs
90. Preparations of male sex hormones and their synthetic analogues.
91. Anabolic steroids. Mechanism of action of individual hormonal drugs. Pharmacological and side effects. Indications and contraindications for use. Signs of toxic effects. Treatment of poisoning. Clinical recommendations.
92. Vitamin preparations and substances with vitamin activity. Multivitamin preparations. Mechanism of action of individual drugs. Pharmacological and side effects. Indications and contraindications for use. Signs of toxic effects of vitamin D. Treatment of poisoning. Clinical recommendations.
93. Antiallergic drugs: (antihistamines; drugs that impede the release of immediate mediator from mast cells. Drugs that reduce vascular permeability.
94. Anti-inflammatory drugs of steroidal and non-steroidal structure.
95. Antihypoxants, antioxidants.
96. Drugs that correct the processes of immunity. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxic effects. Treatment of poisoning. Clinical recommendations.
97. Antiseptic and disinfectants. Classification. . Mechanism of action of each group of substances. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
98. Antibiotics of the penicillin group. Semi-synthetic penicillins.
99. Cephalosporins, their generation.
100. Aminoglycosides.

101. Macrolides.
102. Tetracyclines.
103. Rifamycins.
104. Chloramphenicols.
105. Glycopeptide antibiotics.
106. Polymyxins. Mechanism of action of all previously mentioned antibiotics. Features of pharmacokinetics. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
107. Sulphonamide drugs of short, medium, long and very long action. Combined drugs. Mechanism of action. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
108. Antituberculosis drugs. Mechanism of action of individual hormonal drugs. Pharmacological and side effects. Indications and contraindications for use. Signs of toxic effects. Treatment of poisoning. Clinical recommendations.
109. Antileprosy drugs.
110. Antiviral agents for systemic and external use.
111. Antisyphilitic agents.
112. Antimalarial agents.
113. Antitrichomonas drugs
114. Antimicrobial agents.
115. Antihelminthic agents.
116. Anthelmintic agents.
117. Antifungal agents.
118. Medicines for the treatment of pediculosis.
119. Antineoplastic agents. . Mechanism of action of drugs of each group. Pharmacological and side effects. Indications and contraindications for use. Signs of toxicity. Treatment of poisoning. Clinical recommendations.
120. Pharmacotherapy of emergency conditions in acute intoxication with drugs and poisons. Antidotes, sorbents, complexes. Characteristics of emergency drugs for acute drug poisoning.

LIST OF SKILLS AND ABILITIES FOR CURRENT AND FINAL CONTROL

1. Know the rules for writing prescriptions for different forms of medicines.
2. To draw up requirements of medical and preventive institutions for medicines for inpatients.
3. Keep records and comply with the rules for storing prescription forms and dispensing medicines in different departments of the hospital, as required.
4. Follow the rules of safe storage of poisonous, intoxicating and narcotic drugs.
5. Evaluate the appropriateness of using medicines of different groups for pharmacotherapy, pain relief and assistance in acute conditions and poisoning.
6. Analyse the pharmacological and side effects of drugs of different pharmacological groups.
7. Distinguish between signs of toxicity.
8. Provide emergency care in case of complications during pharmacotherapy.
9. To be able to use the Internet for new drugs and advertising on them and the feasibility of their use.

3.3 Control questions and tasks for independent work Mastery of topics that are submitted only for independent work is checked during the final lesson, exam.

1. A basic list of types of independent work is developed in accordance with the structure of the educational component. The tasks for independent work are:

2. Weekly observation of a patient (questioning, physical examination, evaluation of the results of instrumental and laboratory examinations) with cardiovascular pathology with writing a medical history and presenting a clinical case in a practical class

3. Weekly observation of a patient (questioning, physical examination, assessment of the results of instrumental and laboratory tests) with pathology of the bronchopulmonary system with writing a medical history and presentation of a clinical case in a practical class

4. Weekly observation of a patient (questioning, physical examination, assessment of the results of instrumental and laboratory examinations) with a pathology of the digestive system with writing a medical history and presentation of a clinical case in a practical class

5. Weekly observation of a patient (questioning, physical examination, assessment of the results of instrumental and laboratory examinations) with a pathology of the urinary system with writing a medical history and presentation of a clinical case in a practical class

6. Weekly observation of a patient (questioning, physical examination, evaluation of the results of instrumental and laboratory examinations) with endocrine system pathology with writing a medical history and presentation of a clinical case in a practical class

7. Weekly observation of a patient (questioning, physical examination, assessment of the results of instrumental and laboratory examinations) with pathology of the hematopoietic system with writing a medical history and presentation of a clinical case in a practical class

The higher education student independently chooses the disease for which he/she will supervise (questioning, examination) the patient.

3.4 Individual tasks (a list approved at a meeting of the department with the number of points for their completion, which may be added as incentives):

At the request of a higher education student, when studying relevant topics, he or she may perform individual work, which is carried out outside of class time and, if successfully completed, is additionally evaluated by the teacher.

An indicative list of individual tasks:

1.Conducting a survey of an exemplary patient, his/her general examination and examination of the head, neck, extremities with the main symptoms and syndromes of the disease.

2.Conducting research on the function of external respiration in exemplary patients, processing the data obtained and reporting on the class

3.ECG registration, participation in instrumental studies of the cardiovascular system in exemplary patients with data processing and report at the class

4.Conducting a physical and instrumental examination of an exemplary patient with preparation of a review of scientific literature on the case under study

5.Work with the literature and other sources of information and prepare an abstract about modern methods of examination of patients in the clinic of internal medicine

6.Work with literature and other sources of information and prepare an abstract about the features of syndromic diagnosis of a disease with a typical course, chosen at the request of the applicant for higher education

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

At the meeting of the department, the list of individual tasks (participation in conferences, specialised competitions, preparation of analytical reviews with presentations with plagiarism check) is approved with the determination of the number of points for their completion that 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 ED exceed 120 points.

3.6. Rules for appealing the assessment

According to the general regulations and orders of the KhNMU

4. DISCIPLINE POLICY

Requirements of the educational component (a system of requirements and rules that the teacher imposes on higher education students when studying the educational component). In order to achieve the learning objectives and successfully complete the course, you must: get involved in the work from the first day; attend lectures regularly; read the material in advance, before it is considered in the practical class; not be late and not miss classes; come to the department dressed in a medical gown, have a change of shoes, have a phonendoscope, notebook, pen; perform all the necessary tasks and work daily; 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 and interchangeability of credits are provided (1 credit is 30 hours). Students can discuss different tasks, but their implementation is strictly individual.

Class attendance and behaviour Attendance at lectures and practical classes by higher education students is mandatory. Students are not allowed to be late for lectures and practical classes.

During a lecture, higher education students are recommended to take notes and maintain a sufficient level of silence. It is absolutely normal to ask questions to the lecturer.

The use of electronic gadgets is allowed only with the permission of the lecturer. Spears are not allowed

Recommendations for the successful completion of the discipline (activity of higher education students during practical classes, completion of the required minimum of academic work). Practical classes include:

Active participation in classroom discussions, higher education students must be prepared to understand the material in detail, ask questions, express their point of view, and discuss. During the discussion, it is important to

- respect for colleagues,
- tolerance of others and their experiences,
- receptivity and impartiality,
- the ability to disagree with an opinion but respect the personality of the opponent,
- careful argumentation of one's opinion and courage to change one's position under the influence of evidence,
- I-statements, when a person avoids unnecessary generalisations, describes his/her feelings and formulates his/her wishes based on his/her own thoughts and emotions,
- familiarity with primary sources is required.

Creativity in its various manifestations is encouraged. Higher education applicants are expected to be interested in participating in city, national and international conferences, competitions and other events in the subject area.

Incentives and penalties (additional points for conferences, research, editing, advice, participation in surveys). The assessment of individual tasks of a higher education student is carried out subject to the fulfilment of the teacher's tasks (presentation of an essay at a practical lesson, a report with a presentation at a practical lesson, a report at scientific and practical conferences of the department, university, writing abstracts, articles, participation in the All-Ukrainian Olympiad). Points (no more than 10) are added as incentives.

Safety precautions. The first lesson of the course will explain the basic principles of labour protection by conducting a relevant briefing. Everyone is expected to know where the nearest emergency exit to the classroom is, where the fire extinguisher is located, how to use it, etc.

Procedure for informing about changes in the silent book, etc. The development, updating and approval of the silent manual of the educational component is carried out every academic year. It is obligatory to be posted on the website of the KhNMU in the profile of the educational programme "Medicine" by 30 June of the current academic year for the next academic year;

5. ACADEMIC INTEGRITY

Policy on academic integrity (including liability for violations of academic integrity). Compliance with academic integrity by students includes:

 Independent completion of educational tasks, tasks of current and final control of learning outcomes (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
 References to sources of information in case of using ideas, developments, statements, data;
 Compliance with copyright and related rights legislation;
 Providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

The Department of Propedeutics of Internal Medicine #2 and Nursing maintains zero tolerance for plagiarism. The student is expected to constantly improve his/her own awareness of academic writing. During the first classes, information sessions will be held on what exactly is considered plagiarism and how to conduct a research and scientific search correctly.

Policy on persons with special educational needs. Higher education students with special needs must meet with the teacher or warn him/her before the start of classes; at the request of the student, the group leader may do so.

6. RECOMMENDED READING

Basic

1. James M Ritter, Lionel D Lewis, Timothy GK Mant and Albert Ferro « A Textbook of Clinical Pharmacology and Therapeutics»,5-th edition,- Great Britain :Hodder Arnold, 2008.- 465p.
2.Clinical drug therapy rationales for Nursing,,-2009.-958p.
3. Pharmacology and the nursing process/Linda Lane Lilley, Shelly Rainforth Collins, Julie S. Snyder; with study skills tips by Diane Savoca. -- 7th ed.,USA, :Mosby,-2014.-1003p.
4.Zalyubovska O.I., Koval S.M., Lytvynova O.M. Clinical Pharmacology: Textbook - Kh.
5. Clinical Pharmacology: Textbook / Coll. Authors; edited by. O.Y. Babak, O.M. Bilovol, I.S. Chekman - 2nd ed. And supplement - K.: Medicine, 2010. - 776 p.

Auxiliary

1. Hrytsko OM, Lesyk-Lisna OA "Pharmacotherapy and nursing process" Lviv: "Compact - LV." 2005.
2. Skakun M.P., Posokhova K.A. Fundamentals of pharmacology with prescription: Textbook. Second edition, revised and supplemented with methodological recommendations for practical classes - Ternopil: Ukrmedkniga, 2004. 604 p.
3. Trinus F.P. Pharmacotherapeutic Handbook. 6th edition, stereotyped. - K.: Zdorovye, 1989. - 640 p.