

ANDREI KRUPYNSKYI LVIV MEDICAL ACADEMY

Faculty № 1

Department of pharmacy

APPROVED

Vice-Rector for Educational Work

_____ *Ph.D. in Chemistry Soika L.D.*

« ___ » _____ 2022

SYLLABUS

of the discipline

“PHARMACOLOGY AND MEDICAL PRESCRIPTION”
for training of specialists for the Bachelor degree of higher education
branch of knowledge: 22 “Health care”
Specialty: 223 “Nursing”

Discussed and approved at the meeting of Department of Fundamental Disciplines

Protocol № ___ from « ___ » _____, 2022

Head of the Department _____ assoc. professor Kalytovska M.B, Ph.D. in Pharmacy



Syllabus of the discipline “Pharmacology and medical prescription”

Branch of knowledge	22 “Health care”
Specialty	223 “Nursing”
Specialization	Nursing
Academic degree	Bachelor
Discipline status	Normative
Group	II MCI-21, II MCI-22
The language of instruction	English
The department to which the discipline is assigned	Department of Pharmacy
Teacher of the discipline	Ulyana Partyka
Teacher’s contact information	E-mail: ulyana.partyka@gmail.com The presence of the group in the Telegram, Viber, Google Classroom.
Consultations	According to the consultation schedule. Online consultations are possible through ZOOM, Meet, Moodle or similar resources. To agree on the time of online consultations students should write to the teacher's e-mail or call.
Discipline page	https://vl.lma.edu.ua/course/view.php?id=151
Information scope of academic discipline	The amount of credits – 7 credits The amount of total hours – 210 hours Modules – 4 The year of training – 2nd Semester – 3rd Lectures –40 hours Laboratory works/ Practical classes – 62 hours Self-study – 108 hours.
Short annotation of the discipline	The normative academic discipline "Pharmacology and medical prescription" in the specialty 223 Nursing is aimed at mastering fundamentals of pharmacodynamics, pharmacokinetics and pharmacotherapy of medicines, classification and characteristics of basic modern pharmacological groups and preparations; mastering general prescribing rules in accordance with contemporary requirements; realizing the acquired knowledge in the process of learning, as well as future professional activities. The subject of the discipline is: application of drugs for different diseases, effects of drugs in case of long-term use or combined simultaneous administration of several drugs, manifestations of negative side effects.
Purpose and goals of the discipline	<i>The purpose</i> of studying the normative discipline "Pharmacology and medical prescription" is studying groups of medicines, their pharmacokinetics, pharmacodynamics, indications and contraindications for application, manifestations of possible side effects, symptoms of overdosing and interactions with different drugs.

As a results of studying this discipline, students have to know:

- basic information about the pharmacy, its functions and the rules for storing and accounting for medicinal products in pharmacies and various departments of the hospital;
- interpret the concepts of medicinal raw materials, medicinal substance, medicinal (medicinal) agent, drug and medicinal form;
- the main issues of general pharmacology, in particular the ways of introducing medicinal products, the factors on which their action depends;
- the main issues of pharmacokinetics, pharmacodynamics of medicinal products, features of their action during repeated administration and combined use;
- classification of medicinal products according to the main pharmacological groups;
- characteristics of the action of the most important groups of drugs and individual drugs, methods of their use in appropriate cases;
- modern forms of drugs and general rules for prescribing them in accordance with the requirements of health care institutions (PHI);
- types of reactions of the body to the administration of drugs, the interaction of individual drugs, their compatibility in the case of combined use, possible side effects and their prevention;
- rules for accounting and safe storage of potent, poisonous and narcotic drugs in pharmacies and medical centers;
- basic issues of pharmacokinetics and pharmacodynamics of drugs for rational selection and optimal use in certain diseases;
- to be oriented in the classification and comparative characteristics of medicinal products in order to rationally and effectively use them for disinfection, antiseptics and chemotherapy;
- analyze therapeutic and side effects, know measures to prevent them;
- to be oriented in the classification of medicinal products that affect the afferent and efferent nervous system, the central nervous system, the respiratory system, the cardiovascular system, the functions of the digestive organs, the uterus, and the blood system;
- belonging of drugs to each group;
- hormones of internal secretion glands, their synthetic substitutes and antagonists, indications and contraindications for use, side effects;
- anti-allergic and anti-inflammatory drugs, salts of alkali and alkaline earth metals, their classification, application, side effects;
- classification of vitamins and their belonging to each group;
- emergency aid in case of drug poisoning;

be able to:

- carry out prescriptions and competently use medicinal products for various diseases;
- provide qualified assistance in emergency situations;
- work with medicinal products, annotations to them and reference literature;
- analyze the pharmacotherapeutic and side effects of drugs based on knowledge of their pharmacodynamics and pharmacokinetics;
- draw up prescriptions for various forms of drugs and requirements for medicinal products for health care providers;
- calculate doses and concentrations of medicinal products;
- analyze side effects of drugs and measures to prevent their occurrence;
- analyze the pharmacological and side effects of the studied drugs;

	<ul style="list-style-type: none"> - analyze the pharmacological and side effects of drugs, evaluate their expediency and the possibility of using them for pharmacotherapy of various diseases of the afferent and efferent nervous system, central nervous system, respiratory organs, cardiovascular system, digestive organs, uterus, hematopoietic organs, etc.
Program learning outcomes	<ul style="list-style-type: none"> - PER 02. Conduct nursing diagnosis: identify and assess patient problems. - PER 03. Plan nursing interventions and implement them. - PER 04. Monitor the work of junior medical staff and the state of inventory. - PER14. Prescribe, store and apply pharmacological agents.
Course police	<p>Adherence to the principles of academic integrity. No form of violation of academic integrity is tolerated. Students' work is expected to be independent, with their own original research or reasoning. For people with special educational needs, this requirement is applied taking into account their individual needs and abilities. The use of external sources during written tests, modular tests, testing, preparation for the answer to the exam is prohibited. Detection of signs of academic dishonesty in the student's written work is the basis for its non-inclusion by the teacher.</p> <p>Adherence to the principles and norms of ethics and professional deontology. During classes, students of higher (professional higher) education act from the standpoint of academic integrity, professional ethics and deontology, follow the rules of the Academy. During the fight against the COVID-19 epidemic, all the instructions of the anti-epidemiological regime are followed: they wear masks, adhere to social distance, and use antiseptics. Behave tolerantly, friendly and balanced in communication between themselves and teachers.</p> <p>Attending classes. Students must attend all lectures, practical classes of the course and inform the teacher about the impossibility of attending classes.</p> <p>Deadline policy. Students are required to adhere to the deadlines set by the course and set for all types of work.</p> <p>The order of working off missed classes. Missing classes without a good reason is done according to the schedule of rehearsals and consultations. Missing classes for a good reason can also be done at any convenient time for the teacher. Rearrangement of the final grade in order to increase it is not allowed, except in situations provided by the regulations of the Academy, or non-appearance for the final control for a good reason.</p>

Structure of the discipline

TOPICS OF LECTURES

№	Topic names	Number of hours
1.	Introduction. Prescription. Solid and liquid forms of drugs.	2
2.	General prescription. Soft and injectable forms of drugs.	2
3.	Antiseptics and disinfectants.	2
4.	Chemotherapeutic agents. Antibiotics.	2
5.	Sulfanilamide drugs and agents with antiparasitic activity.	2
6.	Medicines affecting the afferent nervous system.	2
7.	Medicines affecting the efferent nervous system	2

8.	Medicines affecting the CNS.	2
9.	Analgesic and psychotropic medicines	2
10.	Medicines that affect the function of the respiratory organs	2
11.	Drugs that regulate water-salt and acid-alkaline balance. Analeptics	2
12.	Medicines that affect the cardiovascular system	2
13.	Antihypertensive and diuretic agents	2
14.	Medicines affecting the functions of the digestive organs	2
15.	Medicines affecting the tone and contractile activity of the uterus	2
16.	Medicines affecting the blood system	2
17.	Hormonal medicines affecting the functions of the glands of internal secretion	2
18.	Vitamin preparations	2
19.	Antiallergic drugs and anti-inflammatory drugs	2
20.	Salts of alkaline and alkaline-earth metals. Glucose. Drug poisoning	2
	Total:	40

PRACTICAL CLASSES TOPICS

№	Topic names	Number of hours
1.	Prescription. Solid and liquid forms of drugs.	2
2.	Soft and injectable forms of drugs.	2
3.	Antiseptics and disinfectants.	2
4.	Chemotherapeutic agents. Antibiotics.	2
5.	Sulfanilamide drugs and agents with antiparasitic activity.	2
6.	Control work on Sections 1, 2. General prescription. Agents with antimicrobial and antiparasitic activity.	2
7.	Medicines affecting the afferent nervous system.	2
8.	Cholinergic medicines.	2
9.	Adrenergic medicines.	2
10.	Medicines affecting the central nervous system. Analgesic drugs	2
11.	Psychotropic drugs	2
12.	Control work on Sections 3,4. Medicines affecting the peripheral and central nervous system.	2
13.	Medicines that affect the function of the respiratory organs.	2
14.	Analeptics.	2
15.	Drugs that regulate water-salt and acid-alkaline balance.	2
16.	Cardiotonic and antiarrhythmic drugs.	2
17.	Antianginal and antihypertensive drugs.	2
18.	Diuretics.	2
19.	Medicines used to increase appetite. Anorexigenic drugs. Medicines used for insufficient and excessive secretion of the stomach glands.	2

20.	Medicinal products that affect the function of the liver and in case of disruption of the secretory function of the pancreas.	2
21.	Laxatives and antidiarrheals.	2
22.	Control work on Sections 5,6. Medicines affecting the respiratory system, cardiovascular system, and digestive system	2
23.	Medicines affecting the tone and contractile activity of the uterus.	2
24.	Medicines affecting the blood system.	2
25.	Hormonal medicines, their synthetic analogues and antagonists.	2
26.	Vitamin preparations.	2
27.	Antiallergic drugs.	2
28.	Anti-inflammatory drugs.	2
29.	Salts of alkaline and alkaline-earth metals. Glucose.	2
30.	The main principles of treatment of acute poisoning with drugs and poisons.	2
31.	Control work 4. Medicines affecting the tone and contractile activity of the uterus, the blood system, metabolic processes and the internal environment of the body	2
	Total:	62

STUDENT'S SELF-STUDY TOPICS

№	Topic names	Number of hours
1.	The main stages of the development of pharmacology. Development of domestic pharmacology. Contribution of domestic and foreign scientists to the development of pharmacology. Search for medicinal products and their clinical trials	4
2.	Features of working with antiseptic disinfectants, chemotherapeutic agents. Make a table according to the following parameters: release form, application, storage conditions	4
3.	Compile a comparative table of characteristics of new generation antibiotics. Properties. Application. Write out recipes	4
4.	Compile the graphological structure of the classification of sulfonamides, antituberculosis drugs, derivatives of nitrofurans, 8-oxyquinoline and agents with antiparasitic activity	4
5.	Preparation for control work 1	4
6.	Prepare a multimedia presentation on the topic: "Drugs affecting the peripheral nervous system. Adrenergic drugs"	4
7.	Compile an algorithm for providing emergency aid in case of drug poisoning. Write out recipes	4
8.	Make a table of the use of drugs for various types of anesthesia. Write out recipes	4
9.	Features of work with psychotropic drugs. Write out recipes	4
10.	Preparation for control work 2	4
11.	Make a table of drugs that affect the functions of the respiratory organs according to the following parameters: name of the drug, form of release, dose, application, side effects. Write out recipes	4
12.	Compile a table of means used to correct the acid-alkaline and ion balance in the body	2
13.	Make a comparative table of characteristics of cardiac glycosides. Write out recipes	4
14.	Compile a classification table of antihypertensive agents according to the following	4

	indicators: drug name, form of release, application, routes of administration, side effects. Write out recipes	
15.	Compile a table of the medicines used in case of digestive system dysfunction according to the following parameters: name of the drug, form of release, application, side effects. Write out prescriptions for drugs that regulate the secretion of digestive glands	4
16.	Preparation for control work 3	4
17.	Medicines that are used to preserve pregnancy in the early stages (release form, method of application, side effects). Write out recipes	4
18.	Compile a graphological structure of the classification of anti-anemic drugs and drugs that affect hemostasis (direct and indirect action)	4
19.	Compile a table of pituitary drugs that affect glands, organs and tissues. Write out recipes	4
20.	Compile a table of sex hormone preparations, their synthetic analogs and substitutes. Write out recipes	4
21.	Compile a table of clinical manifestations of hypo- and avitaminosis. Write out recipes	4
22.	Drugs that correct (stimulate) immunity and immunosuppressants. Write out recipes	4
23.	Prepare a multimedia presentation of biogenic and synthetic drugs that stimulate metabolic processes	2
24.	Make a table of non-steroidal and steroidal anti-inflammatory drugs. Write out recipes	4
25.	Compile an algorithm for providing emergency aid for poisoning with acids and bases	4
26.	Features of working with glucose preparations, potassium chloride, calcium chloride, magnesium sulfate. Write out recipes	4
27.	Compile an algorithm for providing emergency aid in case of heavy metal salt poisoning. Write out recipes	4
28.	Preparation for control work 4	4
	Total:	108

List of recommended literature

Main (basic):

1. Polevik I.V., Beketov A.I, Kurchenko M.G. Lectures on Pharmacology: For the Foreign Students Being Educated in English, Part 1. - Simferopol, 2003.
2. Polevik I.V., Beketov A.I, Kurchenko M.G. Lectures on Pharmacology: For the Foreign Students of the Medical Faculties Being Educated in English, Part 2. - Simferopol, 2003.
3. Stefanov O. Kurcher V. Pharmacology with General Prescription: Text-book for english-spiking medical students. - K., 2004. - 156 c.
4. Stefanov O. Kurcher V. Pharmacology with General Prescription: Text-book for medical students. - second edition. - K., 2007. - 318 c.
5. Pharmacology: Text book / Chekman I.S., Gorchakova N.O., Panasenko N.I., Bekh P.O. - Vinnytsya: NOVA KNYHA Publishers, 2006.
6. General pharmacology: Course of Lectures/ V.A. Kresyun, D.Yu. Andronov, K.F. Shemonaeva. - Odessa: OSMU, 2005.

Additional:

1. Lippincott's Illustrated Reviews: Pharmacology/ J. M. Mary. — 2nd edition. — Lippincott Williams and Wilkins, 2000. — 526 p.
2. Color Atlas of Pharmacology. Second Edition. Stuttgart – New York. – 2005. - 414 p.
3. Vysotsly I.Yu., Chramova R.A., Kachanova A.A. Drugs affecting peripheral nervous system (for foreign students being educated in English). - Sumy: Publishers SumSU, 2009. – 62 p.

	<p>4. Drugs affecting central nervous system: course of lectures / I.Yu. Vysotsky, R. A. Chramova, A. A. Kachanova, V. L. Vigunov. — Sumy : Sumy State University, 2010. — 76 c.</p>																								
<p>Control methods</p>	<p>Current control is realized on the basis of the control of theoretical knowledge, skills and abilities. <i>Forms of current control.</i> 1. Oral survey (frontal, individual, combined survey); 2. Practical test of formed professional skills; 3. Test control (open and closed tests). Individual work of students is evaluated on practical classes and is part of the final grade of the student. Final control is carried out in the form of a written exam.</p>																								
<p>Teaching methods</p>	<ul style="list-style-type: none"> ✓ verbal methods (lectures, discussion); ✓ visual methods (illustration, demonstration, frontal experiment); ✓ practical methods (laboratory work and solving of problems with professional content); ✓ individual work of students with comprehension and learning of material; ✓ use of control and training computer software in the discipline; ✓ use of project method for interdisciplinary integration. 																								
<p>Necessary equipment</p>	<p>In normal training mode. Studying the course involves joining each student to the learning environment MOODLE, or Google Classroom. In the distance learning mode during quarantine, the study of the course additionally involves joining each student to the programs ZOOM, or Meet (for classes in video conferencing). In this case, the student must take care of the quality of Internet access.</p>																								
<p>Evaluation criteria</p>	<p style="text-align: center;">Assessment scale: national and ECTS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">On a 100-point scale</th> <th style="width: 50%;">On a national scale</th> <th style="width: 25%;">On the ECTS scale</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">90-100</td> <td style="text-align: center;"><i>Excellent</i></td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">80-89</td> <td style="text-align: center;"><i>Good</i></td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">70-79</td> <td style="text-align: center;"><i>Good</i></td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">60-69</td> <td style="text-align: center;"><i>Satisfactory</i></td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">51-59</td> <td style="text-align: center;"><i>Satisfactory</i></td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">35-50</td> <td style="text-align: center;"><i>Unsatisfactory with the possibility of re-passing</i></td> <td style="text-align: center;">FX</td> </tr> <tr> <td style="text-align: center;">0-34</td> <td style="text-align: center;"><i>Unsatisfactory with compulsory re-course of the discipline for the specified semester</i></td> <td style="text-align: center;">F</td> </tr> </tbody> </table>	On a 100-point scale	On a national scale	On the ECTS scale	90-100	<i>Excellent</i>	A	80-89	<i>Good</i>	B	70-79	<i>Good</i>	C	60-69	<i>Satisfactory</i>	D	51-59	<i>Satisfactory</i>	E	35-50	<i>Unsatisfactory with the possibility of re-passing</i>	FX	0-34	<i>Unsatisfactory with compulsory re-course of the discipline for the specified semester</i>	F
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<p>List of questions for the exam</p>	<ol style="list-style-type: none"> 1. Definition of pharmacology as a science and its connection with other disciplines. 2. A brief history of the development of pharmacology. The importance of outstanding domestic and foreign scientists. 3. Ways of finding new medicines. Clinical study of them. 4. Concept of medicinal substances, sources of their production; dosage forms, their classification; medical (medicinal) means, preparations. Modern forms of drugs. Their advantages and disadvantages. 5. Phytotherapy. 6. State pharmacopoeia, its content and significance. 7. Basic information about the pharmacy, its functions. Rules for storage and accounting of medicinal products in pharmacies and hospital departments. 8. Recipe, its meaning and structure. General rules for making recipes. 9. Forms of prescription forms in accordance with the current order and rules for registration of prescriptions. 10. Rules for prescribing drugs for inpatients. 																								

11. Solid forms of medicines and rules for prescribing powders, capsules, dragees and tablets.
12. Liquid forms of medicines and rules for prescribing them.
13. Soft forms of drugs and the rules for issuing prescriptions for them.
14. Forms of drugs for injections. Methods of sterilization. Rules for writing prescriptions for sterile forms of drugs in ampoules and vials.
15. The concept of officinal and magistral forms of medicines.
16. Ways of introducing drugs into the body.
17. Distribution of drugs in the body.
18. Biotransformation of drugs in the body.
19. Ways of removing drugs from the body.
20. Types of action of medicinal substances: local, resorptive, reflex, primary and secondary, direct and secondary.
21. Conditions affecting the action of drugs in the body: chemical structure, physicochemical properties, bioavailability, dose. Age, body weight, individual sensitivity, gender, pathological processes, diet and food composition, meteorological factors.
22. Changes in the effect of medicinal substances upon repeated administration: accumulation, addiction, tachyphylaxis, drug dependence, euphoria, abstinence, sensitization.
23. Combined action of medicinal substances.
24. Synergism and its types. Antagonism. Synergoantagonism.
25. Side effect of drugs of allergic and non-allergic nature. Toxic effect of drugs. Teratogenic, embryotoxic and mutagenic effects. Протимікробні засоби. Загальна характеристика, класифікація.
26. Antiseptic and disinfectants. General characteristics, classification. Use of certain drugs. The mechanism of their antimicrobial action. Poisoning by salts of heavy metals, principles of assistance.
27. Chemotherapeutic agents, general characteristics. Basic principles of chemotherapy. Classification.
28. Antibiotics. General concept. Classification. Use of certain drugs. Mechanism and spectrum of antimicrobial action. Side effects. Their prevention.
29. Sulfanilamide preparations. General characteristics. Mechanism and spectrum of antimicrobial action. Combined drugs. Application. Side effects, prevention.
30. Derivatives of nitrofurans and 8-oxyquinoline. Features of the action of individual drugs. Application. Side effects.
31. Anti-tuberculosis drugs. Concept of main and reserve drugs. Application. Side effects.
32. Antispirochetes. General characteristics, application.
33. Antiviral agents, features of use.
34. Medicines used for trichomoniasis. Principles of trichomoniasis chemotherapy.
35. Antimycotic agents. Features of the action of individual drugs.
36. Anthelmintics, classification. Mechanism of action.
37. Antitumor agents. General characteristics. Mechanism of cytostatic action. Classification. Application.
38. Local anesthetics. General characteristics, types of local anesthesia. Use of drugs for various types of anesthesia.
39. Binding agents, principle of action. Classification, use of individual drugs.
40. Adsorbents, principle of action. Application.
41. Irritants, local reflex and diverting action. Use of certain drugs.
42. Structure of efferent innervation. Mechanism of excitation transmission. Classification of substances affecting the transmission of excitation in cholinergic synapses.
43. M-Cholinomimetic substances, main pharmacological effects. Features of the action of individual drugs. Acute poisoning, assistance.
44. H-Cholinomimetic substances, mechanism of excitatory effect on breathing. Drugs, routes of administration. Toxic effects of nicotine. Anti-smoking products.
45. Anticholinesterase substances. Mechanism of action, main pharmacological effects. Medicinal products, application. Help with FOS poisoning.
46. M-Cholinoblockers. Mechanism of action. Main pharmacological effects. Features of the action of individual drugs. Acute atropine poisoning and assistance.
47. Ganglioblockers. Mechanism of action, use of individual drugs. Side effect.

48. Curare-like substances. General characteristics. Classification. Application.
49. Substances affecting the transmission of excitation in adrenergic synapses, classification.
50. α -Adrenomimetic substances, main pharmacological effects. Application.
51. β -Adrenomimetic substances, main pharmacological effects. Application. Routes of administration.
52. α, β -Adrenomimetic substances, main pharmacological effects. Application. Side effects.
53. Sympathomimetic substances. Indications and contraindications for use. Side effects.
54. α -Adrenoblocking substances, application.
55. β -Adrenoblocking substances. Indications and contraindications for use.
56. Sympatholytic substances. The principle of action. Application.
57. Classification of substances affecting the central nervous system.
58. Means for inhalation anesthesia. Stages of narcosis. Complications during and after anesthesia. Features of the action of individual drugs.
59. Means for non-inhalation anesthesia. Features of the action of individual drugs. Routes of administration.
60. Ethyl alcohol, its resorptive, local and antimicrobial action. Acute poisoning, assistance. Alcoholism, methods of treatment. СНОДІЙНІ ЗАСОБИ, ЗАСТОСУВАННЯ.
61. Antiepileptic and antiparkinsonian drugs.
62. Narcotic analgesics. General characteristics. Features of the action of individual drugs. Application. Acute poisoning, help. Morphine, methods of treatment.
63. Non-narcotic analgesics. Mechanism of analgesic, antipyretic, anti-inflammatory and anti-rheumatic action. Application. Side effect.
64. Neuroleptics. General characteristics. Medicines. Application. Side effects.
65. Tranquilizers. General characteristics. Medicines. Application. Side effects.
66. Sedatives. Effect on the central nervous system. Application. Bromism Methods of treatment.
67. Antidepressants. General characteristics. Classification. Application.
68. Psychostimulants. General characteristics. Application.
69. Analeptics. General characteristics. Effect on the central nervous system. Medicines. Application.
70. Breathing stimulants of central and reflex action. Use of certain drugs.
71. Antitussives, classification. Medicines. Application. Side effects.
72. Expectorants, classification. Application.
73. Broncholytic agents. The principle of action. Use of certain drugs.
74. Medicines used for pulmonary edema.
75. Cardiotonic means. Mechanism of action on the heart. Medicines. Application. Routes of administration, dosage.
76. Antiarrhythmic drugs. Mechanism of action of individual drugs. Application.
77. Medicines that are used to relieve the symptoms of angina pectoris and prevent them. Mechanism of action of individual drugs. Routes of administration.
78. Medicines used in myocardial infarction. Antihypertensive drugs. General characteristics. Classification. Use of certain drugs. Advantage of combined pharmacotherapy.
79. Means affecting appetite.
80. Medicinal products used for insufficient and excessive secretion of the stomach glands.
81. Medicinal products used in case of pancreatic secretion disorder.
82. Biliary drugs, classification. Application.
83. Laxative medicines. Classification. Mechanism of action. Use of certain drugs.
84. Diuretics. Classification. Application. Side effects.
85. Medicines affecting the tone and contractile activity of the uterus. Classification. Application.
86. Agents that affect the blood system. Classification. Application.
87. Hormone preparations, their synthetic substitutes and antagonists.
88. Preparations of water-soluble and fat-soluble vitamins. Multivitamin preparations.
89. Salts of alkaline and alkaline earth metals, significance for the body. Application.
90. Glucose. Application. Mechanism of action.
91. Anti-inflammatory drugs of steroidal and non-steroidal structure. Mechanism of

	action. Application. Side effects. 92. Antiallergic agents. The mechanism of antiallergic action of individual drugs. Application. Side effects. 93. Main principles of providing assistance in case of acute drug poisoning.
Survey	A questionnaire to assess the quality of the course will be provided upon completion of the course