

## Summary of the working program of the academic discipline

### «Pharmacology»

General Educational Program of higher education (specialist's degree programs)

33.05.01 Pharmacy

Department: \_\_\_\_\_ general and clinical pharmacology \_\_\_\_\_

**1. The purpose of mastering the discipline** *participation in the formation of relevant competencies:* UC-1 (IUC-1.4), GPC-2 (IGPC-2.1, IGPC-2.2, IGPC-2.3), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3)

**2. Position of the academic discipline in the structure of the General Educational Program (GEP).**

**2.1.** The discipline refers to the core part of Block 1 of GEP HE

**3. Deliverables of mastering the academic discipline and metrics of competence acquisition**

Mastering the discipline aims at acquiring the following universal (UC) and general professional (GPC) and professional (PC) competencies

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	be able to	possess
1.	UC-1	able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	IUC 1.4. Develops and substantiates a strategy for solving a problem situation on the basis of systemic and interdisciplinary approaches.	<ul style="list-style-type: none"> <li>• General laws of the pharmacokinetics and pharmacodynamics of drugs (PK AND PD);</li> <li>• PK AND PD belonging to certain pharmacological group, pharmacodynamics and pharmacokinetics of drugs, indications, side effects, contraindications</li> <li>• Types of drug-drug interactions</li> </ul>	<ul style="list-style-type: none"> <li>• identify groups of drugs for the treatment of a certain disease;</li> <li>• predict and evaluate adverse drug reactions (ADR);</li> <li>• provide pharmaceutical information and counseling</li> </ul>	<ul style="list-style-type: none"> <li>• practical experience in using normative, reference and scientific literature to solve professional tasks;</li> <li>• practical experience in determining groups of drugs for the treatment of a certain disease, assessing ADR, implementing pharmaceutical information and consulting</li> </ul>
2.	GPC-2	able to apply knowledge about morphofunctional features, physiological conditions and pathological	IGPC 2.1. Analyzes the pharmacokinetics and pharmacodynamics of a drug based on	<ul style="list-style-type: none"> <li>• General principles of pharmacokinetics and pharmacodynamics of drugs (PK AND PD);</li> <li>• PK AND PD</li> </ul>	<ul style="list-style-type: none"> <li>• to define groups of drugs for the treatment of a certain disease;</li> </ul>	<ul style="list-style-type: none"> <li>• practical experience in using normative, reference and scientific literature to</li> </ul>

		<p>processes in the human body to solve professional tasks</p>	<p>knowledge about morphofunctional features, physiological conditions and pathological processes in the human body            IGPC 2.2. Explains the main and side effects of drugs, taking into account morphofunctional features, physiological conditions and pathological processes in the human body            IGPC -2.3. Takes into account morphofunctional features, physiological conditions and pathological processes in the human body when choosing over-the-counter medications</p>	<p>belonging to certain pharmacological group, pharmacodynamics and pharmacokinetics of drugs, indications, side effects, contraindications;            • order prescription of a drug and registration of prescription forms</p>	<ul style="list-style-type: none"> <li>• to analyze the effect of drug on the totality of their pharmacological properties and the ability to use drugs for therapeutic treatment of the adult population;</li> <li>• to predict and evaluate adverse drug reactions;</li> <li>• the use of prescription drugs and counselling</li> </ul>	<p>solve professional tasks;            • practical experience in determining groups of drugs for the treatment of a certain disease, assessing ADR, implementing pharmaceutical information and consulting</p>
3.	PC-3	<p><u>capable of providing pharmaceutical information and consulting during the release and sale of medicinal products for medical use</u></p>	<p>IPC-3.1. Provides information and consulting assistance to visitors of a pharmacy organization when choosing medicines            IPC-3.2. Informs medical professionals about medicines, their synonyms and analogues, possible side effects            IPC-3.3. Takes a decision on the replacement of</p>	<ul style="list-style-type: none"> <li>• General principles of pharmacokinetics and pharmacodynamics of drugs (PK AND PD);</li> <li>• PK AND PD belonging to certain pharmacological group, pharmacodynamics and pharmacokinetics of drugs, indications, side effects, contraindications;</li> <li>• Drug – drug interactions</li> </ul>	<ul style="list-style-type: none"> <li>• to define groups of drugs for the treatment of certain diseases;</li> <li>• to analyze the effect of drug on the totality of their pharmacological properties and predict and evaluate adverse drug reactions;</li> <li>• to provide</li> </ul>	<ul style="list-style-type: none"> <li>• practical experience in using normative, reference and scientific literature to solve professional tasks;</li> <li>• practical experience in determining groups of drugs for the treatment of a certain disease, assessing ADR, implementing pharmaceutica</li> </ul>

			the prescribed medicinal product with synonymous or analogous drugs in the prescribed manner based on information about groups of medicinal products and synonyms within the same international non-patent name		pharmaceutical counselling	Information and consulting
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#### 4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 9 CU (324 AH)

Type of educational work	Labor intensity		Labor intensity (AH) in semester		
	volume in credit units (CU)	volume in academic hours (AH)	5	6	7
Classroom work, including	<b>4,83</b>	<b>174</b>	<b>66</b>	<b>64</b>	<b>44</b>
Lectures (L)	1,06	38	16	14	8
Laboratory practicum (LP)*	does not provide				
Practicals (P)	3,78	136	50	50	36
Seminars (S)	does not provide				
Student's individual work (SIW)	<b>3,17</b>	<b>114</b>	<b>42</b>	<b>44</b>	<b>28</b>
Mid-term assessment					
credit/exam ( <i>specify the type</i> )	<b>1</b>	<b>36</b>			<b>36</b>
<b>TOTAL LABOR INTENSITY</b>	<b>9</b>	<b>324</b>	<b>108</b>	<b>108</b>	<b>108</b>

#### 5. Sections of the academic discipline and competencies that are formed

No	Competence code	Section name of the discipline
1.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	General recipe prescription writing
2.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	General Pharmacology
3.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Drugs regulating the functions of the peripheral nervous system
4.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Drugs regulating the functions of the central nervous system
5.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Medicines regulating the functions of executive bodies and systems

6.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Medicines regulating metabolic processes
7.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Drugs that inhibit inflammation and affect immune processes
8.	<b>UC-1</b> (IUC-1.4), <b>GPC-2</b> (IGPC-2.1, IGPC-2.2, IGPC-2.3), <b>PC-3</b> (IPC-3.1, IPC-3.2, IPC-3.3)	Antimicrobial and antiparasitic agents