

Summary of the working program of the academic discipline

«Basics of pharmacogenetics»

General Educational Program of higher education 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-1.2, IUC-1.3), PC-7 (IPC-7.1)

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

2.1. The discipline refers to the additional 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 professional (PC) competencies

| # | Code of competence | Content of the competence (or part of it) | Code and name of the indicator of achievement of competence | As a result of studying the discipline students must: | | |
|---|--------------------|---|--|--|---|---|
| | | | | 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"> • basic concepts of clinical pharmacogenetics; • genetic factors affecting the pharmacokinetics of medicinal products (drugs); features of pharmacokinetics and pharmacodynamics of medicinal products depending on the genetic polymorphism of the population | <ul style="list-style-type: none"> • analyze the effect of drugs on the totality of their pharmacological properties and the possibility of using drugs for treatment in the future Based on the genetic polymorphism of the population | <ul style="list-style-type: none"> • practical experience in pharmaceutical information and consultation during the release and sale of drugs taking into account the genetic polymorphism of the population |
| 2 | PC-3 | <u>capable of providing pharmaceutical information and consulting during the release and sale of medicinal products for medical use</u> | IPC-3.1. Provides information and consulting assistance to visitors of a pharmacy organization when choosing medicines IPC-3.2. Informs medical professionals | <ul style="list-style-type: none"> • basic concepts of clinical pharmacogenetics; • genetic factors affecting the pharmacokinetics of medicinal products (drugs); features of pharmacokinetics and pharmacodynamics of medicinal | <ul style="list-style-type: none"> • of the population. the effect of drugs on the totality of their pharmacological properties and the possibility of using drugs for treatment depending on the genetic polymorphism of the | <ul style="list-style-type: none"> • practical experience in pharmaceutical information and consultation during the release and sale of drugs taking into account the genetic polymorphism of the |

| | | | | | |
|--|--|---|--|------------|------------|
| | | about medicines, their synonyms and analogues, possible side effects IPC-3.3. Takes a decision on the replacement of 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 | products depending on the genetic polymorphism | population | population |
|--|--|---|--|------------|------------|

4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 1 CU (36 AH)

| Type of educational work | Labor intensity | | Labor intensity (AH) in semesters |
|---------------------------------|---------------------------------------|-------------------------------|-----------------------------------|
| | volume in credit units (CU) | volume in academic hours (AH) | 5 semester |
| Classroom work, including | 0,61 | 22 | 22 |
| Lectures (L) | 0,17 | 6 | 6 |
| Laboratory practicum (LP)* | | | |
| Practicals (P) | 0,44 | 16 | 16 |
| Seminars (S) | | | |
| Student's individual work (SIW) | 0,39 | 14 | 14 |
| Mid-term assessment | Included in the final class structure | | |
| credit | | | |
| TOTAL LABOR INTENSITY | 1 | 36 | 36 |

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

| № | Competence code | Section name of the discipline |
|----|------------------------|---|
| 1. | UC-1 (IUC-1.4), | Introduction. Subject and scientific and practical tasks of |

| | | |
|----|---|--|
| | PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | pharmacogenetics. |
| 2. | UC-1 (IUC-1.4), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | Genetic factors affecting the pharmacokinetics of drugs |
| 3. | UC-1 (IUC-1.4), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | Genetic factors affecting the pharmacodynamics of drugs |
| 4 | UC-1 (IUC-1.4), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | Pharmacogenetics of psychotropic drugs |
| 5 | UC-1 (IUC-1.4), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | Pharmacogenetic bases of differentiated use of drugs that affect the functions of the digestive system, regulate metabolic processes, inhibit inflammation and affect immune processes |
| 6 | UC-1 (IUC-1.4), PC-3 (IPC-3.1, IPC-3.2, IPC-3.3) | Pharmacogenetic bases of differentiated use of antimicrobial and antiparasitic drugs |