

Summary of the working program of the academic discipline

«Informatics»

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

Department: **Information technology**

1. The purpose of mastering the discipline (*participation in the formation of relevant competencies – 33.05.01 Pharmacy*): is to form systemic fundamental knowledge about the use of modern information technologies in medicine and the field of healthcare organization for the collection, storage, processing and analysis of biomedical information, which is necessary to improve the quality of medical care to the population in the professional practice of a pharmacist.

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

2.1. The discipline informatics refers to the core part of Block 1 of GEP HE (Academic discipline index).

The discipline is taught in first and second semesters of 1 year of study.

2.2. The following knowledge, skills and abilities formed by previous academic disciplines are required for mastering the discipline:

1. Mathematics;
2. Physics;
3. Biophysics.

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

Mastering the discipline aims at acquiring the following 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 (CAM)	As a result of mastering the discipline, the students should:		
				know	be able to	possess
1	GPC-6.	Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity	<p>CAM-6.1 GPC-6. Applies modern information technologies in the interaction with parties to the circulation of medicinal products taking into account the requirements of information security</p> <p>CAM-6.2 GPC-6. Performs an effective search for information necessary to solve the tasks of professional activity using legal reference systems and professional pharmaceutical databases</p> <p>CAM-6.3 GPC-6. Uses specialized software for mathematical processing of observational and experimental data in solving</p>	modern information technologies in the interaction with parties to the circulation of medicinal products taking into account	use specialized software for mathematical processing of observational and experimental data in solving	effective search for information necessary to solve the tasks of professional activity using legal reference systems and professional

			problems of professional activity CAM-6.4 ^{GPC-6} . Applies automated information systems in the internal processes of the pharmaceutical organization, as well as for interactions with customers and suppliers	the requirements of information security	professional activity	pharmaceutical databases
2	PC-3	Able to carry out pharmaceutical information and consulting during the release and sale of medicines for medical use and other products of the pharmacy assortment, including with the use of medical and pharmaceutical information systems and databases	CAM-3.1 ^{PC-3} . Provides information and consulting assistance to visitors of a pharmacy organization when choosing medicines and other products of the pharmacy assortment, as well as on questions of their rational use CAM-3.2 ^{PC-3} . Informs medical professionals about medicines, their synonyms and analogues, possible side effects and interactions CAM-3.3 ^{PC-3} . Decides on the replacement of the prescribed drug with synonymous or similar drugs in the prescribed manner based on information about groups of drugs and synonyms within the same international nonproprietary name and prices for them CAM-3.4 ^{PC-3} . Uses medical and pharmaceutical information systems and databases in the implementation of pharmaceutical informing and consulting during the release and sale of medicines for medical use and other pharmacy products	How to inform medical professionals about medicines, their synonyms and analogues, possible side effects and interactions	Provide information and consulting assistance to visitors of a pharmacy organization when choosing medicines and other products of the pharmacy assortment, as well as on questions of their rational use	Using medical and pharmaceutical information systems and databases in the implementation of pharmaceutical informing and consulting during the release and sale of medicines for medical use and other pharmacy products

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

Type of educational work	Labor intensity		Labor intensity (AH) in semesters			
	volume in credit units (CU)	volume in academic hours (AH)	1	2	3	4
Classroom work, including						
Lectures (L)	0,39	14		7	7	
Laboratory practicum (LP)*	1,44	52		26	26	
Practicals (P)						
Seminars (S)						
Student's individual work (SIW)	1,17	42		21	21	
Mid-term assessment						

credit/exam (<i>specify the type</i>)					
TOTAL LABOR INTENSITY	3	108		54	54

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

No	Competence code	Section name of the discipline	The content of the section in teaching units
1	GPC-6; PC-3.	Informatics	<ol style="list-style-type: none"> 1. Statistical algorithms for processing of empirical data. 2. Principles of creating computer models. 3. Probabilistic methods in medicine. 4. Basic concepts of computer communication networks. Concepts of local, corporate, regional and global networks. Internet information resources. 5. Basic concepts about the structure and organization of databases (DB) and database management system (DBMS) on the example of MS Access relational DBMS. 6. Principles of presentations making.