## Summary of the working program of the academic discipline

## «Informatics»

General Educational Program of higher education (<u>specialist's degree programs</u>) 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.

## ${\bf 3. \ Deliverables \ of \ mastering \ the \ academic \ discipline \ and \ metrics \ of \ competence \ acquisition}$

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

Pro	professionar (1 e) competencies						
№	Com pete	The content of the	Code and name of the competence acquisition metric		ult of mast , the studer	_	
115	nce code	ce   competence   (CAM)		know	be able to	possess	
1	GPC	Able to	CAM-6.1 <sub>GPC-6</sub> . Applies modern	modern	use	effective	
	-6.	understand	information technologies in the	informati speciali		search for	
		the	interaction with parties to the	on	zed	informati	
		principles of	circulation of medicinal products	technolo	softwar	on	
		modern	taking into account the	gies in	e for	necessary	
		information	requirements of information	the	mathem	to solve	
		technologies	security	interactio	atical	the tasks	
		and use them	CAM-6.2 GPC-6. Performs an	n with	processi	of	
		to solve the	effective search for information	parties to	ng of	professio	
		tasks of	necessary to solve the tasks of	the	observa	nal	
		professional	professional activity using legal	circulatio	tional	activity	
		activity	reference systems and	n of	and	using	
			professional pharmaceutical	medicina	experim	legal	
			databases	1	ental	reference	
			CAM-6.3 <sub>GPC-6</sub> . Uses specialized	products	data in	systems	
			software for mathematical	taking	solving	and	
			processing of observational and	into	problem	professio	
			experimental data in solving	account	s of	nal	

			problems of professional setivity	the	nrofoss:	nharmaga
			problems of professional activity		professi	pharmace utical
			CAM-6.4 <sub>GPC-6</sub> . Applies	requirem	onal	
			automated information systems in	ents of	activity	databases
			the internal processes of the	informati		
			pharmaceutical organization, as	on .		
			well as for interactions with	security		
			customers and suppliers			
2	PC-	Able to carry	CAM-3.1 PC-3. Provides	How to	Provide	Using
	3	out	information and consulting	inform	informa	medical
		pharmaceuti	assistance to visitors of a	medical	tion and	and
		cal	pharmacy organization when	professio	consulti	pharmace
		information	choosing medicines and other	nals	ng	utical
		and	products of the pharmacy	about	assistan	informati
		consulting	assortment, as well as on	medicine	ce to	on
		during the	questions of their rational use	s, their	visitors	systems
		release and	CAM-3.2 <sub>PC-3.</sub> Informs medical	synonym	of a	and
		sale of	professionals about medicines,	s and	pharma	databases
		medicines	their synonyms and analogues,	analogue	cy	in the
		for medical	possible side effects and	s,	organiz	implemen
		use and other	interactions	possible	ation	tation of
		products of	CAM-3.3 <sub>PC-3</sub> . Decides on the	side	when	pharmace
		the	replacement of the prescribed	effects	choosin	utical
		pharmacy	drug with synonymous or similar	and	g	informing
		assortment,	drugs in the prescribed manner	interactio	medicin	and
		including	based on information about	ns	es and	consultin
		with the use	groups of drugs and synonyms		other	g during
		of medical	within the same international		product	the
		and	nonproprietary name and prices		s of the	release
		pharmaceuti	for them		pharma	and sale
		cal	CAM-3.4 <sub>PC-3</sub> . Uses medical and		cy	of
		information	pharmaceutical information		assortm	medicines
		systems and	systems and databases in the		ent, as	for
		databases	implementation of		well as	medical
		databases	pharmaceutical informing and		on	use and
			consulting during the release and		questio	other
			sale of medicines for medical use		ns of	pharmacy
			and other pharmacy products		their	products
			and other pharmacy products		rational	products
					use	

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

4. Volume of the academic discipline and types of academic work							
Type of educational work	Labor intensity			Labor intensity			
	volume in credit	volume	in	(AH) in semeste		ters	
	units (CU)	academic	hours	1	2	3	4
		(AH)					
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-termassessment							

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

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

№	Compete	Section name	The content of the section in teaching units			
-1	nce code	of the discipline	The content of the section in teaching units			
	GPC-6; PC-3.		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.			
1		Informatics	Concepts of local, corporate, regional and global networks.			
1			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.			