## Summary of the working program of the academic discipline

## « Medical informatics »

General Educational Program of higher education (<u>specialist's degree programs</u>) 31.05.03 Dentistry

Department: Information technology

- 1. The purpose of mastering the discipline (participation in the formation of relevant competencies -31.05.03 Dentistry): 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 dentist doctor.
- 2. Position of the academic discipline in the structure of the General Educational Program (GEP).
- **2.1.** The discipline medical 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. 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

	Com The content As a result of mastering the div					a aimlim a	
	Com	The content	Code and name of the	As a result of mastering the discipline,			
No	pete	of the	competence acquisition	the stu	idents should:		
312	nce	competence		know	be able to	possess	
	code	(or its part)	metric (CAIVI)	KIIOW	be able to		
1	GPC	Able to	CAM-10.1 <sub>GPC-10</sub> . Capable	the capabilities	apply	the	
	-10.	understand	of reference information	of reference	modern	practica	
		the	systems and professional	information	information	1	
		principles	databases; methods of	systems and	and	experie	
		of modern	information retrieval,	professional	communicat	nce in	
		information	information and	databases;	ion	the use	
		technologie	communication	methods of	technologie	of	
		s and use	technologies; modern	information	s to solve	modern	
		them to	medical and biological	retrieval,	the tasks of	informa	
		solve the	terminology; fundamentals	information	professional	tion	
		tasks of	of information security in	and	activity;	and	
		professional	professional activities	communicatio	carry out an	bibliogr	
		activity	CAM-10.2 <sub>GPC-10.</sub> Can	n technologies;	effective	aphic	
			apply modern information	modern	search for	resourc	
			and communication	medical and	information	es, the	
			technologies to solve the	biological	necessary to	use of	
			tasks of professional	terminology;	solve the	special	
			activity; carry out an	fundamentals	tasks of	softwar	
			effective search for	of information	professional	e and	
			information necessary to	security in	activity	automat	

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			solve the tasks of	professional	using	ed
			professional activity using	activities	reference	informa
			reference systems and		systems and	tion
			professional databases; use		professional	systems
			modern medical and		databases;	to solve
			biological terminology;		use modern	standar
			master and apply modern		medical and	d tasks
			information and		biological	of
			communication		terminology	professi
			technologies in		; master and	onal
			professional activity,		apply	activity
			taking into account the		modern	, taking
			basic requirements of		information	into
			information security		and	account
			CAM-10.3 <sub>GPC-10.</sub> Has		communicat	the
			practical experience in the		ion	basic
			use of modern information		technologie	require
			and bibliographic		s in	ments
			resources, the use of		professional	of
			special software and		activity,	informa
			automated information		taking into	tion
			systems to solve standard		account the	security
			tasks of professional		basic	~~~
			activity, taking into		requirement	
			account the basic		s of	
			requirements of		information	
			information security		security	
2	PC-	Able to:	CAM-21.1 PC-21. Knows:	medical and	analyze	
	21	analyze	medical and statistical	statistical	official	
		morbidity,	indicators of morbidity,	indicators of	statistical	
		disability	disability and mortality	morbidity,	reporting	
		and	characterizing health of the	disability and	data,	
		mortality	assigned population, the	mortality	including forms of	
		indicators	order of their calculation	characterizing	federal and	
		to	and evaluation	health of the	sectoral	
		characteriz	CAM-21.2 <sub>PC-21.</sub> Able to:	assigned	statistical	
		e the health	analyze official statistical	population, the	observation;	
		of the	reporting data, including	order of their	analyze	
		assigned	forms of federal and	calculation and	medical and	
		population	sectoral statistical	evaluation	statistical	
		of medical	observation; analyze		indicators	
		care and	medical and statistical		of	
		aimed at	indicators of morbidity,		morbidity,	
		creating	disability and mortality to		disability and	
		conditions	assess the health of the		mortality to	
		for	assigned population		assess the	
		protecting			health of the	
		the health			assigned	
		of citizens			population	
3	D.C.	Able to:	CAM-22.1 PC-22. Knows:	the legislation	Able to: fill	
5	PC-	Tible to.	C/ 111 22.1 PC-22. Tellows.	110 108101011		
	PC- 22	maintain medical	the legislation of the Russian Federation in the	of the Russian Federation in	out medical documentati	

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records,	field of health protection,	the field of	on
also in the	regulatory legal acts and	health	including in
electronic	other documents defining	protection,	the
form in the	the activities of medical	regulatory	electronic
MIS	organizations and medical	legal acts and	form in
	workers; rules for working	other	MIS; work
	in information systems	documents	with
	and information and	defining the	personal
	telecommunications	activities of	data of
	network "the Internet";	medical	patients and
	rules for registration of	organizations	information
	medical documentation in	and medical	constituting
	medical organizations	workers; rules	a medical
	providing outpatient	for working in	secret; use
	medical care including	information	information
	medical worker's home	systems and	systems and
	visits	information	information
	CAM-22.2 <sub>PC-22.</sub> Able to:	and	and
	fill out medical	telecommunica	telecommun
	documentation including	tions network	ication
	in the electronic form in	"the Internet";	network, the
	MIS; work with personal	rules for	Internet, in
	data of patients and	registration of	professional
	information constituting a	medical	activities
	medical secret; use	documentation	
	information systems and	in medical	
	information and	organizations	
	telecommunication	providing	
	network, the Internet, in	outpatient	
	professional activities	medical care	
		including	
		medical	
		worker's home	
		visits	
	1		

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

11 Volume of the deddenic discipline and types of deddenic work						
	Labor	r intensity	Labor intensity (AH) in			I) in
Type of educational work	volume in	volume in		semest	emesters	
Type of educational work	credit units	academic hours (AH)	1	2	3	4
	(CU)			<i></i>		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-termassessment						
credit/exam (specify the type)						
TOTAL LABOR INTENSITY	3	108	54	54		

<sup>5.</sup> Sections of the academic discipline and competencies that are formed

№	Compete nce code	Section name of the discipline	The content of the section in teaching units
1	GPC-10; PC-21; PC-22	Medical informatics	<ol> <li>Statistical algorithms for processing of empirical data.</li> <li>Principles of creating computer models.</li> <li>Probabilistic methods in medicine.</li> <li>Basic concepts of computer communication networks. Concepts of local, corporate, regional and global networks. Internet information resources.</li> <li>Basic concepts about the structure and organization of databases (DB) and database management system (DBMS) on the example of MS Access relational DBMS.</li> <li>Principles of presentations making.</li> </ol>