Summary of the working program of the academic discipline

« Medical informatics »

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

№	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-10.	Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity	CAM-10.1 GPC-10. Capable of reference information systems and professional databases; methods of information retrieval, information and communication technologies; modern medical and biological terminology; fundamentals of information security in professional activities CAM-10.2 GPC-10. Can apply modern information and communication technologies to solve the tasks of professional activity; carry out an effective search for information necessary to	the capabilities of reference information systems and professional databases; methods of information retrieval, information and communication technologies; modern medical and biological terminology; fundamentals of information security in	apply modern information and communication technologies to solve the tasks of professional activity; carry out an effective search for information necessary to solve the tasks of professional activity	the practical experience in the use of modern information and bibliographic resources, the use of special software and automat

			solve the tasks of professional activity using reference systems and professional databases; use modern medical and biological terminology; master and apply modern information and communication technologies in professional activity, taking into account the basic requirements of information security CAM-10.3 GPC-10. Has practical experience in the use of modern information and bibliographic resources, the use of special software and automated information systems to solve standard tasks of professional activity, taking into account the basic requirements of information security	professional activities	using reference systems and professional databases; use modern medical and biological terminology; master and apply modern information and communication technologies in professional activity, taking into account the basic requirements of information security	ed information systems to solve standard tasks of professional activity, taking into account the basic requirements of information security
2	PC-21	Able to: analyze morbidity, disability and mortality indicators to characterize the health of the assigned population of medical care and aimed at creating conditions for protecting the health of citizens	CAM-21.1 PC-21. Knows: medical and statistical indicators of morbidity, disability and mortality characterizing health of the assigned population, the order of their calculation and evaluation CAM-21.2 PC-21. Able to: analyze official statistical reporting data, including forms of federal and sectoral statistical observation; analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the assigned population	medical and statistical indicators of morbidity, disability and mortality characterizing health of the assigned population, the order of their calculation and evaluation	analyze official statistical reporting data, including forms of federal and sectoral statistical observation; analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the assigned population	
3	PC-22	Able to: maintain medical	CAM-22.1 PC-22. Knows: the legislation of the Russian Federation in the	the legislation of the Russian Federation in	Able to: fill out medical documentati	

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

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

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

№	Competence code	Section name of the discipline	The content of the section in teaching units
1	GPC-10; PC-21; PC-22	Medical informatics	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.