

## *Summary of the working program of the academic discipline*

### « Epidemiology »

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

Department of Epidemiology, Microbiology and Evidence-Based Medicine

**1. The purpose of mastering the discipline** (*participation in the formation of relevant competencies – specify the codes*): UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 1; PC - 3; PC - 5; PC – 10; PC - 11; PC – 12

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

**2.1.** The discipline "Epidemiology" refers to the core part of block 1-B1.O.22 "Disciplines (modules)".

The discipline is taught in 7 semester/ 4 year of study.

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

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	be able to	possess
1.	UC-1.	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis 1.2 Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience 1.3 Has practical experience: researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems	-methods of formal logic -methods for assessing the incidence of the population	- apply the methods of formal logic to analyze the problem situation - calculate incidence rates and interpret socially significant sociological information on their basis	- methods for assessing the incidence of the population to develop measures to optimize the organization of medical care for the population and - a technique for interpreting socially significant sociological information based on incidence rates, the use of sociological knowledge in professional and social activities aimed at protecting and protecting the health of the population - the technique of putting forward a version of the solution to the problem,

						formulating a hypothesis, guessing the final result
2.	UC -3.	Able to organize and manage the work of the team, developing a team strategy to achieve the goal	<p>3.1 Knows: the problems of selecting an effective team; basic conditions for effective teamwork; the basics of strategic human resource management, regulatory legal acts concerning the organization and implementation of professional activities; organizational behavior models, factors of formation of organizational relationships; strategies and principles of teamwork, the main characteristics of the organizational climate and interaction of people in the organization</p> <p>3.2 Able to: determine the management style for the effective team work; develop a team strategy; apply the principles and methods of organizing team activities</p> <p>3.3 Has practical experience in: participation in the development of a team work strategy; participation in teamwork, role distribution in the team interaction</p>	<ul style="list-style-type: none"> <li>- anti-epidemic system</li> <li>- basics of population morbidity management</li> <li>- organization of epidemiological studies;</li> <li>- organization of preventive and anti-epidemic measures</li> <li>- planning activities for anti-epidemic provision of the population</li> </ul>	<ul style="list-style-type: none"> <li>- organize epidemiological studies</li> <li>- organize the application of preventive and anti-epidemic measures</li> <li>- plan activities for anti-epidemic provision of the population</li> </ul>	<ul style="list-style-type: none"> <li>- population morbidity management technologies</li> <li>- an algorithm for organizing epidemiological studies with the choice and justification of the goal, in coordination with the team with the manifestation of personal initiative</li> <li>- an algorithm for the organization and implementation of preventive and anti-epidemic measures</li> <li>- skills of effective interaction with other people, organization of professional cooperation</li> <li>- the skills of formulating a common solution and resolving conflicts based on the coordination of positions and taking into account interests</li> <li>- skills in planning activities for anti-epidemic provision of the population</li> </ul>
3.	UC -4.	Able to apply modern communication technologies, including the use of a foreign language(s), for academic and professional interaction	<p>4.1 Knows: the basics of oral and written communication in Russian and foreign languages, functional styles of the native language, requirements to business communication, modern means of information and communication technologies</p> <p>4.2 Can: express thoughts in Russian and</p>	<ul style="list-style-type: none"> <li>- anti-epidemic system</li> <li>- basics of population morbidity management</li> <li>- organization of epidemiological studies;</li> <li>- organization of preventive and anti-epidemic measures</li> <li>- planning</li> </ul>	<ul style="list-style-type: none"> <li>- organize epidemiological studies</li> <li>- organize the application of preventive and anti-epidemic measures</li> <li>- plan activities for anti-epidemic provision of the population</li> </ul>	<ul style="list-style-type: none"> <li>- population morbidity management technologies</li> <li>- an algorithm for organizing epidemiological studies with the choice and justification of the goal, in coordination with the team with the manifestation of personal initiative</li> </ul>

			<p>a foreign language in business communication</p> <p>4.3 Has practical experience in: writing texts in Russian and foreign languages related to the professional activity; experience in translating medical texts from a foreign language into Russian; experience in speaking Russian and foreign languages.</p>	<p>activities for anti-epidemic provision of the population</p>		<ul style="list-style-type: none"> <li>- an algorithm for the organization and implementation of preventive and anti-epidemic measures</li> <li>- skills of effective interaction with other people, organization of professional cooperation</li> <li>- the skills of formulating a common solution and resolving conflicts based on the coordination of positions and taking into account interests</li> <li>- skills in planning activities for anti-epidemic provision of the population</li> </ul>
4.	UC -6.	<p>Able to identify and implement the priorities of their own activities and ways to improve them based on self-assessment and lifelong learning</p>	<p>6.1 Knows: the importance of planning long-term goals of activity taking into account conditions, means, personal opportunities, stages of career growth, time perspective of development of activity and requirements of the labor market; technology and methodology of self-assessment; basic principles of self-education</p> <p>6.2 Able to: determine the priorities of professional activity and ways to improve it on the basis of self-assessment; control and evaluate the components of professional activity; plan independent activities in solving professional problems</p> <p>6.3 Has practical experience in: planning their own professional activities and self-development, studying additional educational programs</p>	<ul style="list-style-type: none"> <li>- anti-epidemic system</li> <li>- basics of population morbidity management</li> <li>- organization of epidemiological studies;</li> <li>- organization of preventive and anti-epidemic measures</li> <li>- planning activities for anti-epidemic provision of the population</li> </ul>	<ul style="list-style-type: none"> <li>- organize epidemiological studies</li> <li>- organize the application of preventive and anti-epidemic measures</li> <li>- plan activities for anti-epidemic provision of the population</li> </ul>	<ul style="list-style-type: none"> <li>- population morbidity management technologies</li> <li>- an algorithm for organizing epidemiological studies with the choice and justification of the goal, in coordination with the team with the manifestation of personal initiative</li> <li>- an algorithm for the organization and implementation of preventive and anti-epidemic measures</li> <li>- skills of effective interaction with other people, organization of professional cooperation</li> <li>- the skills of formulating a common solution and resolving conflicts based</li> </ul>

						on the coordination of positions and taking into account interests - skills in planning activities for anti-epidemic provision of the population
5.	UC -8.	Able to: create and maintain safe living conditions in everyday and professional life for the preservation of the natural environment, ensuring sustainable development of society, including in the case of a threat and occurrence of emergency situations and military conflicts	8.1 Knows: factors of harmful influence on vital activity; algorithms of actions in case of emergencies and military conflicts 8.2 Able to: identify dangerous and harmful factors within the framework of its activities, create and maintain safe living conditions in everyday and professional life 8.3 Has practical experience in: participation in planned exercises to work out the rules of conduct in case of emergencies, first aid; complies with safety regulations at the workplace	- anti-epidemic system - basics of population morbidity management - organization of preventive and anti-epidemic measures - planning activities for anti-epidemic support of the population in case of emergencies and military conflicts	- organize the application of preventive and anti-epidemic measures - plan activities for anti-epidemic support of the population in the event of emergencies and military conflicts	- the skills of recognizing and assessing dangerous situations, risk factors of the environment that affect the health of the population or individual groups of the population, determining ways to protect against them, providing self- and mutual assistance in case of dangers
6.	GPC -1	Able to implement moral and legal norms, ethical and deontological principles in professional activities	1.1 Knows: basics of medical ethics and deontology; fundamentals of legislation in the field of healthcare; legal aspects of medical practice 1.2 Able to: apply ethical norms and principles of behavior of a healthcare worker in the performance of their professional duties; knowledge of modern legislation in the field of healthcare in solving problems of professional activity; apply the rules and norms of interaction between a doctor and colleagues and patients (their legal representatives) 1.3 Has practical experience in: solving standard problems of professional activity based on ethical norms and deontological principles when interacting with colleagues and patients	fundamentals of the legislation of the Russian Federation, the main regulatory and technical documents for the protection of public health	use educational, scientific, popular science literature, the Internet for professional activities; analyze and evaluate the quality of medical care for the adult population, the state of health of the population, the influence of lifestyle factors, the environment on it, and the organization of medical care.	basic information transformation technologies: text, spreadsheet editors; technique of working on the Internet for professional activities

			(their legal representatives), knowledge of the legal aspects of medical practice			
7.	GPC -2	Able to conduct and realize control of efficiency of activities for prevention, formation of the healthy lifestyle and sanitary and hygienic education	<p>2.1 Knows: the main criteria for the healthy lifestyle and methods of its formation; social and sanitary medical aspects of alcoholism, drug addiction, substance abuse, basic principles of their prevention; forms and methods of sanitary and hygienic education among patients (their legal representatives), medical workers; basic hygienic recreational activities that contribute to the health promotion and prevention of the most common diseases; fundamentals of preventive medicine; stages of planning and implementation of communal programs for the prevention of the most common diseases</p> <p>.2 Able to: conduct sanitary and hygienic education among children and adults (their legal representatives) and healthcare workers in order to form a healthy lifestyle and prevention of the most common diseases; carry out sanitary and educational work among children and adults with the aim of forming the healthy lifestyle and prevention of the most common diseases; of children and adults (their legal representatives) conduct aimed at preserving and improving the level of somatic health; develop and implement programs of healthy lifestyle formation, including reduction programs of alcohol and tobacco</p>	<p>fundamentals of the legislation of the Russian Federation, the main regulatory and technical documents for the protection of public health</p>	<p>use educational, scientific, popular science literature, the Internet for professional activities; analyze and evaluate the quality of medical care for the adult population, the state of health of the population, the influence of lifestyle factors, the environment on it, and the organization of medical care.</p>	<p>basic information transformation technologies: text, spreadsheet editors; technique of working on the Internet for professional activities</p>

			<p>consumption, prevention and fight against non-medical narcotic drug use and psychotropic substances; develop a plan of preventive measures and implement methods of group and individual prevention of the most common diseases; prescribe preventive measures to patients taking into account risk factors for prevention and early detection of diseases including cancer; carry out non-drug methods for the prevention of the most common diseases</p> <p>2.3 Has practical experience in:</p> <ul style="list-style-type: none"> <li>propaganda of healthy lifestyle and prevention of the most common diseases; carrying out sanitary and educational work among children and adults; formation of children and adults (their legal representatives) conduct aimed at preserving and improving the level of somatic health; formation of healthy lifestyle programs, including alcohol and tobacco consumption reduction programs, prevention and fight against non-medical consumption of narcotic drugs and psychotropic substances; development of a preventive action plan of events and implementation of group and individual prevention of the most common diseases; prescription of preventive measures for children and adults taking into account risk factors, oncological and hygienic prevention in accordance with the procedures for providing medical care, clinical recommendations taking</li> </ul>			
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			into account the standards of medical care; selection of non-drug methods for the prevention of the most common diseases			
8.	GPC -4	Able to apply medical products, provided by the order of healthcare delivery, as well as examine patients for the purpose of determining the diagnosis	<p>4.1 Knows the methodology of collecting anamnesis of life and diseases, complaints of patients (their legal representatives); examination procedure; and physical examination; clinical aspect, methods of diagnosis of the most common diseases; methods of laboratory and instrumental investigations to assess the state of health, medical indications for conducting research, rules for interpreting their results; international statistical classification of diseases and health-related problems (ICD); conditions requiring emergency medical care; procedure for the use of medical devices in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the medical care delivery taking into account the standards of medical care</p> <p>4.2 Able to: collect complaints, anamnesis of life and disease of patients (their legal representatives), identify risk factors and causes of diseases; apply methods of examination and physical survey of patients; interpret the results of examination and physical examination of patients; diagnose the most common pathology among patients; identify risk factors for cancer; formulate a preliminary diagnosis, to make a plan for conducting</p>	- Basic principles of building a healthy lifestyle; Principles and methods of conducting sanitary and educational work among the population on the prevention of a number of diseases in various population groups	- Independently work with educational, scientific and reference literature. Draw general conclusions. Develop a work plan for the formation of a healthy lifestyle for various contingents (staff and patients of medical organizations, various professional and social groups), taking into account the sanitary and epidemiological situation, Develop methodological materials aimed at improving the sanitary culture and preventing diseases of the population. Public speaking with them	Skills of independent work with educational, scientific and reference literature, wording summarizing conclusions. The skills to develop a work plan for the formation of a healthy lifestyle for specific contingents (staff and patients of medical organizations, various professional and social groups), taking into account the sanitary and epidemiological situation. The skills of self-preparation of methodological materials (conversations, lectures, presentations, memos, brochures) aimed at improving the sanitary culture and prevention of diseases of the population and public speaking with them

			<p>laboratory, instrumental and additional investigations of patients in accordance with the procedures for providing medical care, clinical recommendations taking into account the standards of medical care; to refer patients to laboratory, instrumental and additional investigations in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care; refer patients for consultations to medical specialists in accordance with the procedures of medical care, clinical recommendations taking into account the standards of medical care; to interpret and analyze the results of consultations by medical specialists of patients; to interpret and analyze the results of basic (clinical) and additional (laboratory, instrumental) examination methods; carry out differential diagnosis of diseases of patients; identify clinical signs of sudden acute diseases, conditions, exacerbations of chronic diseases without obvious signs of life-threatening, requiring medical care in an urgent form; use medical devices in accordance with current medical procedures, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care</p> <p>4.3 Has practical experience in: collecting complaints, anamnesis of life and disease of patients (their legal representatives), identifying risk factors and causes of disease development;</p>			
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			<p>examination and physical survey of patients; diagnosis of the most common diseases; identification of risk factors for major oncological diseases; formulation of a preliminary diagnosis, drawing up a plan for instrumental, laboratory, additional investigations, consultations of specialist doctors; referral of patients for instrumental, laboratory, additional investigations, consultations of specialist doctors in accordance with the current procedures for providing medical care, clinical recommendations taking into account the standards of medical care; interpretation of data from additional (laboratory and instrumental) examinations of patients; making a preliminary diagnosis in accordance with the international statistical classification of diseases and problems related to health (ICD); differential diagnosis of diseases; recognition of conditions arising from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring urgent medical care; the use of medical devices in accordance with current medical procedures, clinical recommendations (treatment protocols) on the issues of medical care delivery, assistance taking into account the standards of medical care</p>			
9.	GPC -6	Able to: organize patient care, provide primary health care, ensure the organization of work	6.1 Knows: methods of collecting complaints and anamnesis of patients (their legal	Features of the provision of first medical care	- organize work and make professional	algorithm of anti-epidemic measures,

		<p>and professional decision-making in case of medical emergency on the prehospital stage, in the conditions of emergency situations, epidemics and in centers of mass destruction</p>	<p>representatives); methods of physical examination of patients (examination, palpation, percussion, auscultation); principles and methods of medical care delivery to patients in urgent conditions, in emergency situations, epidemics and in centers of mass destruction in accordance with the procedures for providing medical care, clinical recommendations taking into account the standards of medical care; clinical signs of major emergency conditions; principles of medical evacuation in emergency situations, epidemics and in centers of mass destruction; principles of work in centers of mass destruction; principles of organization of patient care, first aid treatment</p> <p>6.2 Able to: recognize conditions that require healthcare delivery in an emergency form, including in the conditions of emergencies, epidemics and in the centers of mass destruction, requiring medical assistance in an emergency form; organize the work of medical personnel in emergency situations, epidemics and in centers of mass destruction; provide emergency medical care to patients in conditions that pose a threat to the life of patients, including (blood circulation and (or) respiration); use medicines and medical products when providing medical care in emergency conditions; perform basic cardiopulmonary resuscitation; use</p>	<p>in urgent conditions at the prehospital stage</p> <ul style="list-style-type: none"> <li>- anti-epidemic system</li> <li>- basics of population morbidity management</li> <li>- organization of preventive and anti-epidemic measures</li> <li>- planning activities for anti-epidemic provision of the population</li> </ul>	<p>decisions in emergency situations, epidemics</p> <ul style="list-style-type: none"> <li>- to carry out anti-epidemic measures, to protect the population in foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters</li> </ul>	<p>protection of the population in foci of especially dangerous infections, during natural disasters</p>
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			<p>personal protective equipment; organize patient care, provide primary health care</p> <p>6.3 Has practical experience in: assessing the condition requiring healthcare delivery in an emergency form, including in emergency situations, epidemics and in the centers of mass destruction; definition of life-threatening conditions, including the state of clinical death (arrest of vital important functions of the human body (blood circulation and (or) breathing) requiring medical care in the emergency form; medical care delivery in emergency form to patients in conditions, constituting life-threatening situations including clinical death (arrest of vital functions of human body (blood circulation and (or) respiration); the use of medicines and medical products in the provision of medical care in case of emergency conditions and epidemics; use of personal protective equipment; organization of patient care, first aid measures</p>			
10.	GPC - 11	Able to: prepare and apply scientific, research and production, design, management and regulatory documentation in the health care system	<p>11.1 Knows: scientific, research and production, design, management and regulatory documentation in the healthcare system</p> <p>11.2 Able to: prepare scientific, research and production, design, management and regulatory documentation in the healthcare system</p>	scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system, regulatory documentation in the field of providing sanitary and anti-epidemic measures	prepare scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	Principles of scientific and organizational activity
11.	PC - 1	readiness to implement a set of measures aimed at maintaining and	1.1 Knows: General issues of organizing medical care	Legislation of the Russian Federation in	draw up sanitary and epidemiologi	- an algorithm for issuing a sanitary and

		<p>strengthening health and including the formation of a healthy lifestyle for the patient (their relatives / legal representatives). Prevention of the occurrence and (or) spread of dental diseases, their early diagnosis, identification of the causes and conditions for the occurrence and development, as well as prevention.</p>	<p>for adults and children Anatomy of the head, maxillofacial region, features of blood supply and innervation, structure of teeth Histology and embryology of the oral cavity and teeth, the main violations of embryogenesis Anatomical and functional state of the organs of the maxillofacial region, taking into account age Normal and pathological physiology of the dentition, its relationship with the functional state of other body systems and the levels of their regulation The role of oral hygiene, nutrition and the use of fluoride in the prevention of dental and periodontal diseases The method of collecting an anamnesis of life and diseases, complaints from children and adults (their legal representatives) with dental diseases Goals and objectives of individual and professional oral hygiene Hygienic indices and methods for their determination Methods of examination and physical examination, features of clinical dental examination in children and adults with dental diseases Clinical picture, diagnostic methods, classification of diseases of the teeth, periodontium, oral mucosa, lips in children and adults Clinical picture, diagnostic methods, classification of diseases of the bone tissue of the jaws, peripheral nervous</p>	<p>the field of healthcare, ensuring the sanitary and epidemiological welfare of the population -Main directive documents (sanitary and epidemiological rules, orders, instructions, guidelines) on epidemiological surveillance</p>	<p>cal conclusions on compliance / non-compliance with sanitary and epidemiological requirements - draw up expert opinions on the compliance / non-compliance of environmental factors, products, conditions, buildings, structures with established requirements - draw up certificates of state registration of chemical and biological substances introduced into production for the first time and not previously used and preparations manufactured on their basis, potentially dangerous to humans (except for medicines); certain types of products that pose a potential hazard to humans (except for medicines); certain types of products, including food products, imported into the territory of the Russian Federation for the first</p>	<p>epidemiological conclusion on the compliance / non-compliance of environmental factors, food and non-food products, incl. items of children's use, conditions of activity of legal entities, individual entrepreneurs, territories used by them, buildings, structures, structures, premises, equipment, vehicles to sanitary and epidemiological requirements - an algorithm for issuing expert opinions on the compliance / non-compliance of environmental factors, products, conditions, buildings, structures with established requirements - algorithm for issuing state registration certificates</p>
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			<p>system of the maxillofacial region, temporomandibular joint in children and adults</p> <p>Methods of laboratory and instrumental studies for assessing the state of health, medical indications for conducting studies, rules for interpreting their results</p> <p>Medical indications and contraindications for the use of additional examination methods</p> <p>Medical devices used in the provision of medical care to children and adults with dental diseases</p> <p>International Statistical Classification of Diseases and Related Health Problems (ICD)</p> <p>The procedure for providing medical care to the adult population with dental diseases</p> <p>The procedure for providing medical care to children with dental diseases</p> <p>Clinical guidelines for the provision of dental care</p> <p>Conditions requiring emergency medical attention</p> <p>Sanitary and epidemiological requirements and issues of organizing sanitary and anti-epidemic (preventive) measures in order to prevent the occurrence and spread of infectious diseases</p> <p>1.2 Able to:</p> <p>Collect complaints, anamnesis of life and disease in children and adults (their legal representatives) with dental diseases, identify risk factors and causes of dental diseases</p> <p>Interpret information received from children and adults (their legal representatives) with</p>		time;	
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			<p>dental diseases</p> <p>Apply methods of examination and physical examination of children and adults with dental diseases</p> <p>Interpret examination and physical examination findings in children and adults with dental disease</p> <p>Diagnose diseases of the pulp and periodontium, periodontal disease, oral mucosa and lips in children and adults with dental diseases of the hard tissues of the teeth</p> <p>Diagnose in children and adults with dental diseases defects of teeth, dentition, dentoalveolar deformities and anomalies of teeth and jaws, complete absence of teeth and prerequisites for their development, injuries of teeth, bones of the facial skeleton and soft tissues of the maxillofacial region</p> <p>To identify risk factors for oncological diseases of the maxillofacial region in children and adults with dental diseases</p> <p>Formulate a preliminary diagnosis, draw up a plan for conducting laboratory, instrumental and additional studies in children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Refer children and adults with dental diseases for laboratory, instrumental and additional studies in accordance with the current procedures for the provision of dental care, clinical guidelines, taking into account the standards of medical</p>			
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			<p>care</p> <p>Refer children and adults with dental diseases for consultations with specialist doctors in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care</p> <p>Interpret and analyze the results of consultations by medical specialists of children and adults with dental diseases</p> <p>Justify the need and scope of additional examinations of patients (including X-ray methods)</p> <p>Interpret and analyze the results of basic (clinical) and additional (laboratory, instrumental) examination methods in children and adults with dental diseases, including X-ray data</p> <p>Conduct differential diagnosis of dental diseases in children and adults</p> <p>Formulate a final diagnosis in accordance with the International Statistical Classification of Diseases and Problems,</p>			
12.	PC - 3	the ability and readiness to carry out anti-epidemic measures and provide medical care in foci of dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies, including participation in medical evacuation.	<p>3.1 Knows:</p> <p>The algorithm for carrying out anti-epidemic measures and providing medical care in foci of dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies, including the procedure for participating in medical evacuation.</p> <p>Rules for the use of personal protective equipment.</p> <p>Requirements for labor protection, fire safety, emergency procedures.</p> <p>3.2 Able to:</p>	Legislation of the Russian Federation in the field of healthcare, ensuring the sanitary and epidemiological welfare of the population, -Main directive documents (sanitary and epidemiological rules, orders, instructions, guidelines)	Identify the main patterns of development of the epidemic process, including among epidemiologically significant population groups and risk groups at the regional level - Provide activities for primary and secondary prevention of the most common	determination of the immune stratum of the population in relation to infections controlled by means of immunoprophylaxis - an algorithm for compiling a vaccination plan (on the example of a specific infection) - an algorithm for assessing the correctness of carrying out preventive vaccinations according to epidemic

		<p>comply with anti-epidemic measures and provide the necessary medical care in foci of dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies, including taking part in medical evacuation. Use personal protective equipment. Comply with the requirements of labor protection, fire safety, emergency procedures.</p>	<p>on epidemiological surveillance</p> <ul style="list-style-type: none"> <li>- The main criteria of public health and risk factors for socially significant and most common diseases, methods and organizational forms of their prevention</li> <li>- Disinfection, disinsection and deratization methods used at objects of various categories</li> <li>- National calendar of preventive vaccinations, timing of preventive vaccinations and categories of citizens subject to mandatory vaccination</li> <li>-Methods of using immunobiological drugs</li> <li>-List of medical contraindications to preventive vaccinations</li> <li>- Rules for the storage and transportation of immunobiological medicinal products for immunoprop</li> </ul>	<p>diseases</p> <ul style="list-style-type: none"> <li>- Take a comprehensive approach to the appointment of laboratory examinations, taking into account the characteristics of laboratory tests</li> <li>- Evaluate the results of standard research methods</li> <li>- Organize medical examinations and preventive measures</li> <li>- Identify high-risk groups</li> <li>- Identify the epidemic focus of infection and organize measures to improve it</li> <li>- Interpret the data of special diagnostic methods</li> <li>- Justify the development of preventive and anti-epidemic programs for the regional level of implementation and organize their implementation</li> <li>- Draw up a plan of preventive and anti-epidemic measures during the introduction of quarantine, to eliminate the outbreak, in the focus of infection</li> <li>- To draw up an act of investigation of cases of</li> </ul>	<p>indications to citizens or certain groups of citizens</p> <ul style="list-style-type: none"> <li>- an algorithm for assessing the correct storage and transportation of vaccines, immunobiological and medicinal products</li> <li>- algorithm for the formation of the design (scheme) of an epidemiological study</li> <li>- algorithm for calculating the amount of disinfectant required for disinfection in the outbreak</li> <li>- an algorithm for assessing the completeness of preventive measures in a particular situation</li> <li>- skills of working with normative, normative-technical, legislative and legal documentation within the scope of professional activity;</li> <li>- an algorithm for epidemiological surveillance of individual groups and nosological forms of infectious diseases;</li> <li>- methods of epidemiological diagnosis of infections,</li> <li>- methods of collecting social and hygienic information, information about the state of health of the population;</li> <li>- methodology for conducting a</li> </ul>
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				<p>hylixis</p> <ul style="list-style-type: none"> <li>- Diagnostic information content of laboratory symptoms and syndromes (the concept of specificity, sensitivity of tests, predictive value)</li> <li>-List of laboratory methods, taking into account the organizational structure of medical organizations of various types</li> <li>- Fundamentals of clinical epidemiology and evidence-based medicine</li> <li>- Practical and organizational foundations of epidemiological surveillance and its provision</li> <li>- Methods for assessing the quality and effectiveness (epidemiological, social, economic) of preventive and anti-epidemic measures</li> <li>- General principles for the use of laboratory methods and</li> </ul>	<p>food poisoning and occupational diseases.</p>	<p>retrospective and operational epidemiological analysis of the incidence of the population and epidemiological examination of foci of infectious diseases;</p> <ul style="list-style-type: none"> <li>- evaluation of the effectiveness of anti-epidemic measures;</li> <li>- an algorithm for drawing up an action plan for the introduction of quarantine, for the elimination of an outbreak, in the focus of infection</li> <li>- an algorithm for issuing an act of investigating cases of food poisoning and occupational diseases</li> </ul>
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				the evaluation of the results obtained for epidemiological monitoring, as well as the diagnosis of infectious diseases		
13.	PC - 5	the ability and willingness to use social and hygienic methods of collecting and medical and statistical indicators of dental morbidity, indicators of the quality of dental care.	<p>5.1 Knows:</p> <p>Rules for registration and features of maintaining medical records, including in the form of an electronic document, in medical organizations of a dental profile</p> <p>Rules for working in medical information systems and the information and telecommunication network "Internet"</p> <p>Job responsibilities of medical workers in medical organizations of the dental profile</p> <p>Organization of the work of dental offices, equipment and equipment of dental offices, departments and clinics</p> <p>Occupational health, safety and fire safety requirements, emergency procedures</p> <p>5.2 Able to:</p> <p>Prepare work plan and work report</p> <p>Fill in medical documentation, including in the form of an electronic document, and control the quality of its maintenance</p> <p>Conduct an analysis of medical and statistical indicators of the incidence of dental diseases</p> <p>Use in your work information systems in the field of healthcare and the information and telecommunication network "Internet"</p> <p>Supervise the</p>	<p>Legislation of the Russian Federation in the field of healthcare, ensuring the sanitary and epidemiological welfare of the population,</p> <p>-Main directive documents (sanitary and epidemiological rules, orders, instructions, guidelines) on epidemiological surveillance</p> <p>- basic principles and methodology for carrying out preventive and anti-epidemic measures</p> <p>- modern databases</p> <p>- features of the population's commitment to preventive and anti-epidemic measures</p>	<p>Conduct hygiene education and education of the population,</p> <p>- Work with scientific and reference literature</p> <p>- Use electronic databases</p> <p>- to form the commitment of the population to the implementation of preventive and anti-epidemic measures</p>	<p>- an algorithm for conducting hygienic education and training of citizens, professional hygienic training and certification of officials and employees</p> <p>-assessment of the correctness of the execution of a personal medical book</p> <p>- an algorithm for preparing material for hygienic education and training of decreed groups</p> <p>- the skills of forming the commitment of the population to the implementation of preventive and anti-epidemic measures</p>

			<p>performance of the duties of the medical staff at their disposal</p> <p>Use in the work of personal data of patients and information constituting a medical secret</p> <p>5.3 Has practical experience:</p> <p>Drawing up a work plan and a report on their work</p> <p>Maintaining medical records, including in the form of an electronic document</p> <p>Monitoring the performance of official duties by the medical staff at their disposal</p> <p>The use of information systems in the field of healthcare and the information and telecommunication network "Internet"</p> <p>Use in the work of personal data of patients and information constituting a medical secret</p>			
14.	PC- 10	<p>readiness for educational activities to eliminate risk factors for the development of dental diseases, prevent dental diseases, to educate the population in basic hygiene measures of a health-improving nature, self-control skills of the main physiological indicators that contribute to the preservation and promotion of health.</p>	<p>10.1 Knows:</p> <p>Forms and methods of sanitary and hygienic education among patients (their legal representatives), medical workers</p> <p>Features of specific and non-specific prevention of dental diseases</p> <p>The main hygienic measures of a health-improving nature that promote health and prevent the occurrence of dental diseases</p> <p>Etiology, pathogenesis, prevention of dental diseases</p> <p>Fundamentals of Preventive Medicine</p> <p>Methods and forms of organization of communication, techniques and methods of attracting the population to training in hygiene measures of a health-improving nature</p>	<p>Legislation of the Russian Federation in the field of healthcare, ensuring the sanitary and epidemiological welfare of the population,</p> <p>-Main directive documents (sanitary and epidemiological rules, orders, instructions, guidelines) on epidemiological surveillance</p> <p>- basic principles and methodology</p>	<p>Conduct hygiene education and education of the population,</p> <p>- Work with scientific and reference literature</p> <p>- Use electronic databases</p> <p>- to form the commitment of the population to the implementation of preventive and anti-epidemic measures</p>	<p>- an algorithm for conducting hygienic education and training of citizens, professional hygienic training and certification of officials and employees</p> <p>-assessment of the correctness of the execution of a personal medical book</p> <p>- an algorithm for preparing material for hygienic education and training of decreed groups</p> <p>- the skills of forming the commitment of the population to the</p>

			<p>Psychological and pedagogical foundations and methods of using technical teaching aids, information computer technologies, electronic educational and information resources, distance learning technologies and e-learning, including telemedicine technologies</p> <p>Educational technologies and methods for teaching patients and healthcare professionals</p> <p>10.2 Can:</p> <p>Plan, organize and conduct activities within the framework of sanitary and hygienic education among the population, training of patients and medical workers</p> <p>Carry out health education among children and adults with dental diseases in order to form a healthy lifestyle and prevent dental diseases</p> <p>Involve available medical personnel in the planning and development of the content of measures for sanitary and hygienic education among the population, education of patients and medical workers</p> <p>It is reasonable to use technical teaching aids, information computer technologies, electronic educational and information resources, distance educational technologies and e-learning, including telemedicine technologies</p> <p>To carry out an analysis of the measures taken for sanitary and hygienic education among the population</p> <p>10.3 Has practical experience:</p>	<p>for carrying out preventive and anti-epidemic measures</p> <ul style="list-style-type: none"> <li>- modern databases</li> <li>- features of the population's commitment to preventive and anti-epidemic measures</li> </ul>		<p>implementation of preventive and anti-epidemic measures</p>
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			<p>Planning, organizing and holding an event within the framework of sanitary and hygienic education among the population</p> <p>Planning, organizing and conducting patient and healthcare professional education</p> <p>Promotion of a healthy lifestyle and prevention of dental diseases</p> <p>Formation in children and adults (their legal representatives) of behavior aimed at maintaining and improving the level of dental health</p>			
15.	PC- 11	ability to apply the basic principles of organization and management in the field of protecting the health of citizens, in medical organizations and their structural divisions	<p>11.1 Knows: Legislation of the Russian Federation in the field of health care and regulatory legal acts that determine the activities of medical organizations.</p> <p>General issues of organizing medical care to the population and management in the field of protecting the health of citizens, in medical organizations and their structural divisions.</p> <p>Responsibilities of employees of medical organizations.</p> <p>Criteria for assessing the quality of medical care.</p> <p>11.2 Knows how to: apply the legislation of the Russian Federation in the field of health care and regulatory legal acts that determine the activities of medical organizations, principles of organization and management in the field of protecting the health of citizens, in medical organizations and their structural divisions.</p> <p>To analyze the quality of medical care, indicators of morbidity, disability and mortality of the</p>	<p>Legislation of the Russian Federation in the field of healthcare, ensuring the sanitary and epidemiological welfare of the population,</p> <p>-Main directive documents (sanitary and epidemiological rules, orders, instructions, guidelines) on epidemiological surveillance</p> <p>- basic principles and methodology for carrying out preventive and anti-epidemic measures</p> <p>- modern databases</p> <p>- features of the population's commitment</p>	<p>Conduct hygiene education and education of the population,</p> <p>- Work with scientific and reference literature</p> <p>- Use electronic databases</p> <p>- to form the commitment of the population to the implementation of preventive and anti-epidemic measures</p>	<p>- an algorithm for conducting hygienic education and training of citizens, professional hygienic training and certification of officials and employees</p> <p>-assessment of the correctness of the execution of a personal medical book</p> <p>- an algorithm for preparing material for hygienic education and training of decreed groups</p> <p>- the skills of forming the commitment of the population to the implementation of preventive and anti-epidemic measures</p>

			<p>population.  Work in information - analytical systems.  11.3 Has practical experience: application of the Russian Federation legislation in the field of health care and regulatory legal acts that determine the activities of medical organizations, the principles of organization and management in the field of public health, in medical organizations and their structural divisions.  Provide medical statistics.  Monitoring the fulfillment by medical workers occupying the positions of middle and junior medical personnel of medical appointments.  Preparation of a report and a plan of their work.</p>	<p>to preventive and anti-epidemic measures</p>		
16.	PC- 12	<p>willingness to participate in scientific research, analysis and public presentation of medical information based on evidence-based medicine and to participate in the implementation of new methods and techniques aimed at protecting public health and reducing dental morbidity.</p>	<p>12.1 Knows:  Fundamentals of evidence-based medicine; the main sources of medical information based on evidence-based medicine; methods and forms of public presentation of medical information; basic principles of medical research  12.2 Can:  Search for medical information based on evidence-based medicine;  interpret the data of scientific publications;  critically evaluate modern methods of diagnosis, prevention and treatment of diseases from the perspective of evidence-based medicine;  justify your choice of methods for diagnosing, preventing and treating dental diseases;</p>	<p>- algorithm for critical evaluation of scientific publications  - types of epidemiological studies  -algorithm for searching for evidentiary information in modern databases  - Fundamental s of evidence-based medicine and clinical epidemiology</p>	<p>evaluate scientific publications in terms of evidence-based medicine  - search for evidence in modern databases  - conduct epidemiological studies</p>	<p>skills in conducting scientific and practical research and presenting research results in the form of presentation, information and analytical materials, articles, reports, reports.  - Skills in working with electronic databases</p>

			<p>prepare a presentation for the public presentation of medical information, the results of scientific research</p> <p>12.3 Has practical experience:</p> <p>Development of algorithms for examination and treatment of adults and children with dental diseases in accordance with the principles of evidence-based medicine;</p> <p>search and interpretation of medical information based on evidence-based medicine;</p> <p>public presentation of medical information based on evidence-based medicine;</p> <p>partial participation in scientific research</p>			
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#### 4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 2 CU (72 AH)

Type of educational work	Labor intensity		Labor intensity (AH) in semesters
	volume in credit units (CU)	volume in academic hours (AH)	11
Classroom work, including		<b>44</b>	<b>44</b>
Lectures (L)	1	10	10
Laboratory practicum (LP)*		-	-
Practicals (P)	1	34	34
Seminars (S)		-	-
Student's individual work (SIW)		<b>28</b>	<b>28</b>
Mid-term assessment		-	-
credit/exam ( <i>specify the type</i> )		c	c
<b>TOTAL LABOR INTENSITY</b>	<b>2</b>	<b>72</b>	<b>72</b>

#### 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	UC -1 UC - 3 UC - 4 UC - 6 UC -8 GPC -1 GPC-2	General epidemiology with the foundations of evidence-based medicine	Epidemiological approach in the study of human pathology. Fundamentals of evidence-based medicine. Brief history of epidemiology. The main stages in the development of the theory and practice of epidemiology. Modern structure of epidemiology. The main goals of epidemiology. Epidemiology in the system of medical education, the relationship of epidemiology with other medical sciences. Wide application of the epidemiological

	<p>GPC -4 GPC – 6 GPC -11 PC -1 PC -3 PC – 5 PC – 10 PC – 11 PC - 12</p>		<p>approach in the study of mass non-communicable diseases. Formation of the directions of clinical epidemiology and evidence-based medicine. Principles of evidence in the search for causal relationships. Epidemiology as the main preventive discipline.</p> <p>epidemiological research. Epidemiological research as the basis of epidemiology. Morbidity is the main subject of epidemiology. Morbidity as one of the objective mass phenomena reflecting the impact of adverse factors on the population.</p> <p>Types (options, characteristic features) of epidemiological studies.</p> <p>Types of epidemiological studies.</p> <p>Evaluation of preventive and therapeutic measures based on the principles of evidence-based medicine. Controlled randomized clinical trial (study). The concept of "gold standard", randomization, informed consent of patients in clinical trials and medical practice. Four levels of organization of "masked research" in clinical trials. Database. Search for evidence-based information Sources of evidence-based information.</p> <p>Meta-analysis based on published scientific papers. Four levels of evidence (reliability) of the effectiveness of preventive and / or therapeutic measures.</p>
2	<p>UC -1 UC – 3 UC – 4 UC – 6 UC -8 GPC -1 GPC-2 GPC -4 GPC – 6 GPC -11 PC -1 PC -3 PC – 5 PC – 10 PC – 11 PC - 12</p>	<p>Epidemiology of infectious diseases</p>	<p><b>Epidemic process.</b> Existing definitions of the concept of epidemic process. The role of L.V. Gromashevsky, K.O. Stallybrass, E.N. Pavlovsky, I.I. Elkin. V.A. Bashenina, V.D. Belyakova, B.L. Cherkassky and other domestic and foreign scientists in the creation and development of the doctrine of the epidemic process. Modern idea of the parasitic system. The concept of causality in relation to infectious and parasitic diseases from the standpoint of evidence-based medicine. The role of biological, natural and social factors in the development of the epidemic process. Epidemiological classification of infectious diseases. Features of the development of the epidemic process in anthroponoses, zoonoses and sapronoses.</p> <p>The doctrine of the epidemic process L.V. Gromashevsky. Modern ideas about the elementary basis of the epidemic process. Definition of the concept of "source" and "reservoir of infection". Definition of concepts mechanism, ways and factors of transmission. The basic law is the transmission mechanism. Possibility of applicability of the transmission mechanism theory to zoonoses and sapronoses.</p> <p>The doctrine of natural foci E.N. Pavlovsky.</p> <p>The theory of self-regulation of parasitic systems V.D. Belyakova et al., its main provisions, theoretical and practical significance. Socio-ecological concept of B.L. Cherkassky. Manifestations of the epidemic process.</p> <p><b>Organization of anti-epidemic activities.</b> Preventive and anti-epidemic measures. The quality and effectiveness of anti-epidemic measures. Evaluation of the effectiveness of preventive and anti-epidemic measures from the standpoint of evidence-based medicine. Varying degree of controllability of infections. Groups of anti-epidemic measures. The main feature of the</p>



		<p>grouping of measures according to the direction of their action on the elements of the epidemic process.</p> <p>Measures aimed at the source of infection in anthroponoses and zoonoses.</p> <p>Measures aimed at breaking the transmission mechanism.</p> <p>Activities directed at a susceptible organism.</p> <p>Features of the organization of preventive and anti-epidemic measures and their performers.</p> <p>Measures to eliminate the consequences of natural disasters and other emergencies, features of their organization.</p> <p>Modern preventive programs.</p> <p><b>Immunoprophylaxis.</b> The place of immunoprophylaxis in the system of preventive and anti-epidemic measures, its significance in different groups of infectious diseases. Epidemiological, social and economic significance of immunoprophylaxis in various infectious diseases. Modern international, national and regional programs in the field of immunoprophylaxis and their importance in the implementation of measures to prevent the spread and reduce the level of infectious diseases. Organization and conduct of vaccinations in medical organizations. Use in the practice of immunization of various types of vaccine preparations permitted in accordance with the procedure established by law on the territory of the Russian Federation (domestic and foreign). The quality of vaccination preparations that affect the effectiveness of immunization. Indications and contraindications for vaccination. Vaccination of persons not vaccinated according to the calendar. Evaluation and accounting of post-vaccination reactions and post-vaccination complications. The national calendar of preventive vaccinations as an instructive and methodological document regulating the timing, sequence, indications and scheme for the use of the vaccine. The principles of its compilation. Ways to improve the vaccination calendar. Approaches to the personification of immunoprophylaxis. Emergency immunoprophylaxis (non-specific and specific).</p> <p><b>Disinfection.</b> Definition of disinfection. Types of disinfection. Preventive and focal (current and final). Disinfection methods. Mechanical, physical and chemical methods. Antimicrobial actions of chemicals - disinfectants: bactericidal, tuberculocidal, virucidal, fungicidal, sporicidal. Levels of disinfectant activity. Release forms of disinfectants. Requirements for ideal disinfectants. Individual means and compositions. The main groups of chemicals used as disinfectants. General characteristics of groups. Sterilization. Concept definition. The value of sterilization in the prevention of nosocomial infections. Pre-sterilization cleaning of medical devices (after disinfection). requirements for its implementation. Disinfection and sterilization equipment. Disinfection chambers.</p> <p><b>Epidemiology and prevention of individual infectious and parasitic diseases</b> General characteristics of anthroponoses. Concept definition. Grouping of anthroponoses depending on the implementation of the main mechanism of transmission of infectious agents. Sources of infection and their potential and real</p>
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			epidemiological danger. Features of the development and manifestation of the epidemic process in anthroponoses with a different transmission mechanism. The activity of various transmission routes in various infectious diseases. Significance and characteristics of preventive and anti-epidemic measures. Epidemic management capabilities
3	UC -1 UC - 3 UC - 4 UC - 6 UC -8 GPC -1 GPC -4 GPC - 6 GPC -11 PC -16 PC -18 PC - 19 PC - 21	Hospital epidemiology	Hospital epidemiology, structure and content. Concept definition. Epidemiological, economic and social significance. Factors contributing to the occurrence of HCAI. The concept of microbial colonization. Hospital strains and their characteristics. At-risk groups. Sources of nosocomial infection. Potential role of healthcare professionals in the spread of HCAI. Exogenous and endogenous infection. Natural and artificial (artificial) mechanisms of transmission: the multiplicity and diversity of ways and factors that implement the spread of HCAI. Manifestations of the epidemic process. Sanitary-hygienic and anti-epidemic regime in medical organizations of the dental profile. Prevention of HCAI among medical workers. The content and organization of epidemiological surveillance of HCAI, the features of its implementation in medical organizations of the dental profile. Prevention of occupational infection with HIV, hepatitis viruses. Safety of workplaces in medical organizations of the dental profile. Post-exposure prophylaxis of viral hepatitis and HIV infection.
4	UC -1 UC - 3 UC - 4 UC - 6 UC -8 GPC -1 GPC -4 GPC - 6 GPC -11 PC -16 PC -18 PC - 19 PC - 21	Epidemiology of emergencies	The concept of "emergency" (ES). Damaging factors of disasters. Basic principles of anti-epidemic organization of medical and dental care in emergencies. Medical and evacuation support under a strict anti-epidemic regime. Emergency prevention.
5	UC -1 UC - 3 UC - 4 UC - 6 UC -8 GPC -1 GPC -4 GPC - 6 GPC -11 PC -16 PC -18 PC - 19 PC - 21	Epidemiology of noncommunicable diseases	Definition of the term "epidemiology of non-communicable diseases". Characteristics of manifestations of non-infectious morbidity: intensity, dynamics, structure, internal and external risk factors for the development of pathology, epidemiological surveillance. Stages of planning programs for the prevention of dental diseases. The purpose, objectives of the programs, the choice of methods and means of preventing dental diseases. Criteria for evaluating the effectiveness of programs. Organizational measures for the implementation of prevention programs. Features of carrying out preventive dental measures among various social and age groups of the population

