

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

### « **Epidemiology** »

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

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 - 16; PC - 18; PC - 19; PC - 21

**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.25 "Disciplines (modules)".

The discipline is taught in 11 semester/ 6 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> </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</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>- planning activities for anti-epidemic provision of the population</p>		<p>initiative</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</li> </ul>

						conflicts based 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	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

			colleagues and patients (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</p>	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

			<p>of alcohol and tobacco 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: 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</p>			
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			recommendations taking 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</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	- Independent 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>for conducting 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</p>		
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			<p>development; 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	6.1 Knows: methods of collecting complaints and anamnesis of	Features of the provision of first	- organize work and make	algorithm of anti-epidemic

		<p>organization of work 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>patients (their legal 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</p>	<p>medical care 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>professional 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>measures, protection of the population in foci of especially dangerous infections, during natural disasters</p>
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			<p>resuscitation; use 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 - 16	Able to: organize and monitor the	16.1 Knows: principles of application of specific	- principles for the use of	- organize and conduct	The algorithm for conducting

		<p>immunoprophylaxis of infectious diseases in the adult population, prescribe preventive measures to patients taking into account risk factors in accordance with the current <b>procedures</b> for providing medical care, <b>clinical recommendations</b> (treatment protocols) on the provision of medical care taking into account the <b>standards</b> of medical care and monitor compliance with preventive measures</p>	<p>and non-specific prevention of infectious diseases, the national calendar of preventive vaccinations and the calendar of preventive vaccinations for epidemic indications; legislation of the Russian Federation in the field of health protection, sanitary rules and regulations; preventive measures taking into account the diagnosis in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) about medical care delivery taking into account the standards of medical care</p> <p>16.2 Able to: organize and carry out immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account standards of medical care; prescribe preventive measures to patients taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases</p>	<p>specific and non-specific prevention of infectious diseases, - the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications; - Legislation of the Russian Federation in the field of health protection, sanitary rules and regulations; - preventive measures, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols)</p>	<p>immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care; - prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases</p>	<p>and monitoring the effectiveness of measures for the prevention and promotion of a healthy lifestyle and sanitary and hygienic education</p>
12.	PC - 18	<p>Able to determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor in the event of infectious (parasitic) diseases, issue and send an emergency notification</p>	<p>18.1 Knows: The legislation of the Russian Federation in the field of health protection, sanitary rules and regulations; rules for conducting sanitary and anti-epidemic measures</p>	<p>- Legislation of the Russian Federation in the field of health protection, sanitary rules and</p>	<p>- determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to</p>	<p>- plan introduction of restrictive measures (quarantine) - an algorithm for submitting a notification to the territorial body of the Federal Service</p>

		to the territorial body of the Federal Service for Supervision of Consumer Rights Protection and Human Well-being when an infectious or occupational disease is detected, carry out anti-epidemic measures in the event of a focus of infection, including quarantine measures for the identification of highly dangerous (quarantine) infectious diseases	15.2 Able to: determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor; carry out sanitary and anti-epidemic measures in the event of a focus of infection	regulations; - rules for conducting sanitary and anti-epidemic measures	a specialist doctor; - to carry out sanitary and anti-epidemic measures in case of outbreak of an infectious disease	for Supervision of Consumer Rights Protection and Human Welfare of an emergency notification in case of detection of an infectious or occupational disease, to take anti-epidemic measures in the event of a focus of infection, including quarantine measures in case of detection of especially dangerous (quarantine) infectious diseases
13.	PC - 19	Able to: form healthy lifestyle programs, including programs to reduce alcohol and tobacco consumption, prevent and combat non-medical use of narcotic drugs and psychotropic substances, and evaluate the effectiveness of preventive work with patients	19.1 Knows: forms and methods of sanitary and educational work on the formation of elements of the healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevention and control of non-medical use of narcotic drugs and psychotropic substances  19.2 Able to: develop and implement programs for the formation of the healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevention and control of non-medical use of narcotic drugs and psychotropic substances	- forms and methods of sanitary and educational work on the formation of elements of a healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevent and combat non-medical consumption of narcotic drugs and psychotropic substances	- develop and implement healthy lifestyle programs, including programs to reduce alcohol and tobacco consumption, prevent and combat non-medical	The algorithm for conducting and monitoring the effectiveness of measures for the prevention and promotion of a healthy lifestyle and sanitary and hygienic education
14.	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	21.1 Knows: medical and statistical indicators of morbidity, disability and mortality characterizing health of the assigned population, the order of their calculation and evaluation 21.2 Able to: analyze official statistical reporting data, including forms of federal and	- medical and statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population, the procedure	- analyze data from official statistical reporting, including forms of federal and sectoral statistical observation; analyze medical and	Maintaining medical records and organizing the activities of nursing staff at the disposal

			sectoral statistical observation; analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the assigned population	for their calculation and evaluation	statistical indicators of morbidity, disability and mortality to assess the health of the attached population	
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#### 4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 3 CU (108 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>66</b>	<b>66</b>
Lectures (L)		14	14
Laboratory practicum (LP)*		-	-
Practicals (P)		52	52
Seminars (S)		-	-
Student's individual work (SIW)		<b>42</b>	<b>42</b>
Mid-term assessment			
credit/exam ( <i>specify the type</i> )		c	c
<b>TOTAL LABOR INTENSITY</b>	<b>3</b>	<b>108</b>	<b>108</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
	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	General epidemiology with the foundations of evidence-based medicine	<p>Epidemiological approach to 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 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. Continuous and selective, descriptive and analytical,</p>

			<p>observational and experimental, routine and special, one-stage (transverse) and longitudinal (long-term) retrospective, dynamic and mixed, field and clinical, indicative (trial), "case-control" and "cohort". Schematic diagram of the organization, the main stages of the study.</p>
<p>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</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.</p> <p>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 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</p>

		<p>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 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</p>
	<p>UC -1 UC – 3 UC – 4 UC – 6 UC -8 GPC -1 GPC -4 GPC – 6 GPC -11 PC -16 PC -18</p>	<p>Hospital epidemiology</p> <p><b>Hospital epidemiology, structure and content Definition of healthcare-associated infections (HAIs).</b> Concept definition. Terminology. The relevance of the problem at the present stage. Epidemiological, economic and social significance of healthcare-associated infections. Etiology. Existing groupings (classifications). The place of purulent-septic infections in the structure of HCAI. Hospital strains and their characteristics. Epidemiological features of HCAI in hospitals of various profiles.</p> <p><b>Preventive and anti-epidemic measures.</b> Ensuring epidemiological safety in various medical organizations,</p>

	PC – 19 PC - 21		including outpatient clinics. Sanitary-hygienic and anti-epidemic regime in medical organizations. The content and organization of epidemiological surveillance of HCAI, the features of its implementation in medical organizations of various profiles. Epidemiological analysis of the resistance of the main causative agents of HCAI to antimicrobial drugs. Prevention of HCAI among medical workers.
	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	<p><b>Basic principles of the methodology for epidemiological studies of noncommunicable diseases.</b> The difference between the epidemiology of infectious and non-infectious: a longer latent period, the unpredictability of its specific terms, the gradual development of the disease, the great variability of the signs of the disease, the multifactorial nature of the etiology and pathogenesis, the probabilistic nature, the difficulty of identifying the immune part of the population to the disease, the prognosis of morbidity and the effectiveness of prevention, etc. d. The purpose of the epidemiology of non-communicable diseases is to establish quantitative patterns in the formation of the incidence of the population with chronic pathological conditions or diseases and to develop measures to control them. The value of epidemiological research in the study of noncommunicable diseases. The main objectives of the study of the epidemiology of noncommunicable diseases.</p> <p><b>Features of the epidemiology of current diseases</b> (cardiovascular, oncological, allergic, congenital anomalies, injuries, poisoning, environmentally caused diseases, etc.).</p>