

Summary of the working program of the academic discipline

«PEDIATRICS»

(name of the academic discipline)

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

DENTISTRY

Department: **FACULTY AND POLYCLINIC PEDIATRICS**

1. The purpose of mastering the discipline (*participation in the formation of relevant competencies – specify the codes*):

UC – 1, UC – 4, UC- 5

GPC – 4, GPC – 5, GPC- 7, GPC – 10

PC – 1, PC – 3, PC – 8, PC – 9

Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy (UC-1)

Able to apply modern communication technologies, including the use of a foreign language(s), for academic and professional interaction (UC-4)

Able to analyze and take into account the diversity of cultures in the process of cross-cultural interaction (UC-5)

Able to apply medical products, provided by the order of healthcare delivery, as well as examine patients for the purpose of determining the diagnosis (GPC-4)

Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (GPC-5)

Able to prescribe treatment and monitor its effectiveness and safety (GPC-7)

Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity (GPC – 10)

Able to collect a genealogical history, get the necessary information about parents, next of kin and persons caring for a child (PC – 1)

Able to collect the anamnesis of life and the anamnesis of the child's disease (PC-3)

Able to: make a differential diagnosis with other diseases/conditions including emergencies, establish a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD) (PC – 8)

Able to: develop a treatment plan for a disease or condition and prescribe medicine, medical devices, therapeutic nutrition and non-drug treatment taking into account the diagnosis, age and clinical picture in accordance with current **procedures** for the medical care delivery, **clinical recommendations** (treatment protocols) on the provision of medical care taking into account the **standards** of medical care and to evaluate the effectiveness and safety of the use of medicines, medical devices, therapeutic nutrition and other methods of treatment (PC – 9)

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

The discipline PEDIATRICS refers to the core part (*or the part formed by the participants of educational relations*) of Block 1 of GEP HE (Academic discipline index).

The discipline is taught in 5 semester/3 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	UC-1.1 is able to search, critically analyze and synthesize information, apply a systematic approach to solving tasks UC-1.2 He is able to apply methods of collecting, collecting and processing information; performs critical analysis and synthesis of information obtained from various sources; applies a systematic approach to solving tasks. UC-1.3 Owns the methods of search, collection and processing, critical analysis and synthesis of information; the methodology of a systematic approach to solving the tasks.	methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis	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	researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems
2.	UC-4	Able to apply modern communication technologies, including the use of a foreign language(s), for academic and professional interaction	UC-4.1 is able to work with literary sources in Russian and a foreign language UC-4.2 Build and maintain relationships with all members of the team, establish	the basics of oral and written communication in Russian and foreign languages, functional	express thoughts in Russian and a foreign language in business communication	writing texts in Russian and foreign languages related to the professional activity; experience in translating medical texts

			psychological and verbal contact with sick children and their parents; UC-4.3 Ability to carry out business communication in oral and written forms	styles of the native language, requirements to business communication, modern means of information and communication technologies		from a foreign language into Russian; experience in speaking Russian and foreign languages.
3.	UC-5	Able to analyze and take into account the diversity of cultures in the process of cross-cultural interaction	UC-5.1 He knows the patterns and features of the socio-historical development of various cultures in an ethical and philosophical context. UC-5.2 Understands and perceives the diversity of society in socio-historical, ethical and philosophical contexts UC-5.3 Has the skills of interaction in the world of cultural diversity using ethical norms of behavior; as well as the skills of tolerant perception of the intercultural diversity of society in socio-historical, ethical and philosophical contexts.	the main categories of philosophy, the laws of historical development, the basics of intercultural communication; the basic concepts of human interaction in the organization	competently, intelligibly present professional information in the process of intercultural interaction; observe ethical norms and human rights; analyze the features of social interaction taking into account national, ethno-cultural, professional features	Practical experience in productive interaction in the professional environment taking into account national, ethno-cultural, professional features overcoming communicative, educational, ethnic, professional and other barriers in the process of intercultural interaction
4.	GPC-4	Able to apply medical products, provided by the order of healthcare	GPC-4.1 Uses modern medical technologies, specialized equipment and	The methodology of collecting anamnesis	Collect complaints, anamnesis of life and	Collect complaints, anamnesis of life, including

		<p>delivery, as well as examine patients for the purpose of determining the diagnosis</p>	<p>medical products, medicines, in solving professional problems from the standpoint of evidence-based medicine. GPC-4.2 Knows the indications and contraindications to the appointment of instrumental, functional and laboratory methods of examination, possible complications during the examination, emergency care and their prevention GPC-4.3 Interprets the results of the most common methods of instrumental, laboratory and functional diagnostics to identify pathological processes. GPC-4.4 Owns methods of general clinical examination of a patient of various ages. GPC-4.5 Formulates a preliminary diagnosis and a clinical diagnosis according to the ICD.</p>	<p>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</p>	<p>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; formulate a preliminary diagnosis, to make a plan for conducting laboratory, instrumental and additional investigations of patients in accordance with the procedures for providing</p>	<p>perinatal and disease of patients (their legal representatives), identifying risk factors and causes of disease 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</p>
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				<p>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>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</p>	<p>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</p>
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					<p>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</p>	<p>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>
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					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	
5.	GPC-5	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	<p>GPC-5.1 He knows the functional systems of the human body, their regulation and self-regulation when interacting with the external environment in normal and pathological processes.</p> <p>GPC-5.2 Knows etiology, pathogenesis, morphogenesis, pathomorphosis of disease development, basic concepts of nosology</p> <p>GPC-5.3 Knows the indicators of morphofunctional, the physiological state of a healthy</p>	Anatomy, histology, embryology, topographic anatomy, physiology , pathological anatomy and physiology of child's organs and systems	Evaluate the basic morphological and functional data, physiological conditions and pathological processes in the child's body	Assessment of basic morphological and functional data, physiological conditions and pathological processes in the child's body when solving professional problems

			child and is able to measure them			
6.	GPC-7	Able to prescribe treatment and monitor its effectiveness and safety	<p>GPS-7.1 Selects a drug based on the totality of its pharmacokinetic and pharmacodynamic characteristics for the treatment</p> <p>GPS-7.2 Selects the optimal minimum of the most effective means, using convenient ways of their application</p> <p>GPC-7.3 applies indicators of morphofunctional, physiological state and pathological process for examination of the child's body in order to establish a diagnosis, appointment treatment and monitoring of its effectiveness and safety</p> <p>GPC-7.4 Evaluates efficiency and safety drug therapy based on a combination of clinical laboratory, instrumental and other diagnostic methods</p>	<p>methods of drug and non-drug treatment, medical indications for the use of medical devices for the most common diseases; groups of drugs used to provide medical care in the treatment of the most common diseases; the mechanism of their action, medical indications and contraindications to the prescription compatibility, possible complications, side effects, adverse reactions, including serious and unforeseen ; features of medical care in emergency forms</p>	<p>develop a treatment plan for patients with the most common diseases in accordance with the procedures for providing medical care, clinical guidelines taking into account the standards of medical care; prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment</p>	<p>developing a treatment plan for patients with the most common diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care; provision of emergency and urgent medical care to patients with the most common diseases</p>

7.	GPC-10	Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity	GPC-10.1 able to solve standard tasks of professional activity with the possibility of preparing reviews, abstracts, scientific reports, publications and bibliographies on research work, taking into account the requirements of information security	the capabilities of reference information systems and professional databases; methods of information retrieval, information and communication technologies; modern medical and biological terminology; fundamentals of information security in professional activities	apply modern information and communication technologies to solve the tasks of professional activity; carry out an effective search for information necessary to solve the tasks of professional activity using reference systems and professional databases; use modern medical and biological terminology; master and apply modern information and communication technologies in professional activity, taking into account the basic requirements of	use of modern information and bibliographic resources, the use of special software and automated information systems to solve standard tasks of professional activity, taking into account the basic requirements of information security
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					informatio n security	
8.	PC-1	Able to collect a genealogical history, get the necessary information about parents, next of kin and persons caring for a child	PC – 1.1 to compile a pedigree of the patient in order to identify monogenic and chromosomal diseases PC-1.2 carrying out a quantitative and qualitative assessment of the burden of genealogical history PC-1.3 the establishment of burden with the identification of predisposition to certain diseases	make a family tree within three generations	Establish contact with the child, the parents of the child to receive information about the presence of hereditary and chronic diseases in the immediate family and persons caring for the child	the methodology of collecting and evaluating data on the health status of the closest relatives and persons caring for the child (hereditary and chronic diseases)
9.	PC-3	Able to collect the anamnesis of life and the anamnesis of the child's disease	PK-3.1 assess the clinical picture of diseases and conditions requiring emergency care for children PK-3.2 Assess the clinical picture of diseases and conditions requiring emergency care for children	Methods of collecting anamnesis of the child's life; obtaining information about diseases and surgical interventions (which and at what age); obtaining information about preventive vaccinations; assessing the condition and well-being of the child; features of diagnosis	Receive information about the history of the child's life, including from which pregnancy and which child, about the outcomes of previous pregnancies, about the course of this pregnancy and childbirth, the condition of the child at birth and during the period of new birth,	Examine and evaluate the skin, the severity of subcutaneous fat, nails, hair, visible mucous membranes, lymph nodes, organs and systems of the child's body, to assess compliance with the passport age of physical and psychomotor development of children; to determine body weight and height, body mass index of a child of

				and clinical course of diseases in young children	about the duration of natural, mixed and artificial feeding receive information about complaints, the timing of the onset of the disease, the timing of the first and repeated treatment, conducted therapy	various ages, to assess physical and psychomotor development of children
10.	PC-8	Able to: make a differential diagnosis with other diseases/conditions including emergencies, establish a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD)	PC-7.1 Performs early diagnosis of childhood diseases of internal organs PC-7.2 Establishes a diagnosis taking into account the current international statistical classification of diseases. PC -7.3 Performs differential diagnosis of child's diseases	etiology, pathogenesis and pathomorphology, clinical aspect, differential diagnosis, clinical features, complications and outcomes of child's diseases; methods of laboratory and instrumental examinations for assessing the state of health, medical indications for conducting	analyze the results of the patient's examination, if necessary, justify and plan the scope of additional examinations; interpret the results of collecting information about the patient's disease; interpret the data obtained during the laboratory examination of the patient; interpret	Make a diagnosis according to the ICD

				examinations, rules for interpreting their results; ICD	the data obtained during the instrumental examination of the patient; interpret the data obtained during consultations of the patient by medical specialists; to carry out differential diagnostics of diseases of internal organs from other diseases	
11.	PC-9	Able to: develop a treatment plan for a disease or condition and prescribe medicine, medical devices, therapeutic nutrition and non-drug treatment taking into account the diagnosis, age and clinical picture in accordance with current procedures for the medical care delivery, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care and to evaluate the effectiveness and safety of the use of	PC-8.1 Draws up a patient's treatment plan taking into account the diagnosis, the patient's age, the clinical picture of the disease, the presence of complications, concomitant pathology, in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care PC-8.2 Prescribes	modern methods of using medicines, medical devices and therapeutic nutrition in diseases and conditions of the patient in accordance with the current procedures for medical care, clinical	draw up a treatment plan for the disease and the patient's condition taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for providing medical care, clinical	Methods of analysis of evaluation of safety and effectiveness of pharmacotherapy

		<p>medicines, medical devices, therapeutic nutrition and other methods of treatment</p>	<p>medicines, and therapeutic nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p>	<p>recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; the mechanism of action of medicines, medical devices and therapeutic nutrition, medical indications and contraindications to their use; complications caused by their use; modern methods of non-drug treatment of diseases and conditions of the patient in</p>	<p>recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care; prescribe medications, medical devices and therapeutic nutrition taking into account the diagnosis, age and clinical picture of the disease in accordance with the current medical care procedures, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; prescribe non-drug treatment taking into</p>	
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				<p>accordance with current medical care procedures, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; action mechanism of non-drug treatment; medical indications and contraindications to its prescription; side effects, complications caused by its use</p>	<p>account the diagnosis, age and clinical picture of the disease in accordance with the current medical care procedures, clinical recommendations (treatment protocols) on issues related to the provision of medical care taking into account the standards of medical care; evaluate the effectiveness and safety of the use of medicines, medical devices and therapeutic nutrition</p>	
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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	volume in academic hours	V	

	(CU)	(AH)	
Classroom work, including	3	108	108
Lectures (L)		14	14
Laboratory practicum (LP)*			
Practicals (P)		52	52
Seminars (S)			
Student's individual work (SIW)		42	42
Mid-term assessment			
credit/exam (<i>specify the type</i>)			
TOTAL LABOR INTENSITY	volume in academic hours (AH)	108	108
	volume in credit units (CU)	3	3

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

No	Competence code	Section name of the discipline
1.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC- 10 PC – 1, PC – 3, PC – 8, PC – 9	<p>Nutrition of infants of the first year of life (breastfeeding, artificial). The benefits of breastfeeding. The composition of maternal milk. 10 steps of successful breastfeeding. Recommendations for breastfeeding support. Signs of successful breastfeeding. Difficulties on the part of the mother and child during breastfeeding, methods of their correction.</p> <p>Artificial feeding. Types of infant's formulas and principles of their purpose.</p> <p>Complementary food. Types of complementary foods. The principles of the appointment of complementary foods.</p> <p>Preparation of a diet for children of the first year of life who are on various types of feeding. Physical development of infants of the first year of life. Mass-growth indicators of infants of the first year of life are normal and pathological. Parametric and nonparametric methods of assessing physical development. Factors affecting the physical development of children. Psychomotor development of children of the 1st year of life. Developmental milestones.</p>
2.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC- 10 PC – 1, PC – 3, PC – 8, PC – 9	<p>A newborn baby. Morphological and functional features of organs and systems of the newborn. Features of examination of the newborn in the delivery room and after discharge from the maternity hospital. The Apgar scale. Transitional states of the newborn. Principles of newborn care. Pathological conditions in the neonatal period.</p> <p>Asphyxia of a newborn. Clinical and laboratory diagnostic criteria. Principles of resuscitation. Perinatal CNS lesion. Clinical and laboratory criteria.</p> <p>Birth trauma. Reasons. Classification. Diagnostic criteria. Principles of correction.</p> <p>Jaundice of newborns. Reasons. Differential diagnosis. Hemolytic disease of the newborn. Etiopathogenesis. Clinical and laboratory diagnostic criteria. Principles of treatment.</p>
3.	UC – 1, UC – 4, UC- 5	Vitamin-D-deficiency Rickets. Features of the course of rickets at the present stage. Risk factors. The biological role of vitamin D and calcium in

	GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	the child's body. Pathogenesis of rickets. Classification. Clinical options. Criteria for laboratory and instrumental diagnostics. Changes in bones in rickets. (Ro-grams). Prevention and treatment of rickets in children. Iron deficiency anemia. Classification of anemia. Criteria for the diagnosis of iron deficiency. Diet therapy. Principles of treatment and prevention. Atopic dermatitis. Etiology. Diagnostic criteria. Principles of therapy.
4.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	Morphological and functional features of the cardiovascular system in children. Features of fetal and newborn blood circulation. Physical methods of cardiovascular system examination. Congenital heart defects. Risk factors. Classification. CHD with left-to-right shunt ('pale')– VSD, ASD, PDA. Defects with right-left shunting ("blue"): tetralogy of Fallot, hypoplasia of the left heart syndrome, transposition of great vessels, Eisenmenger syndrome. Features of hemodynamics. Clinical and Diagnostic criteria. Complications. Principles of therapy. Carditis in children. Etiology. Pathogenesis. Classification. Diagnostic criteria. Differential diagnosis. Treatment. Prevention
5.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	Morphological and functional features of the bronchopulmonary system in children. Physical methods of examination of the bronchopulmonary system. Pneumonia in children. Definition and classification. Age-dependent Etiology. Pathogenesis. Clinical and diagnostic's criteria. Differential diagnosis. Differentiated choice of antibacterial therapy. Bronchoobstructive syndrome. Clinical and diagnostic criteria. Principles of emergency care.
6.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	Morphological and functional features of the hematopoietic system in children. Indicators of white and red blood are normal and depending on age. Pathology of the blood system in children: Hemolytic anemia (hereditary spherocytosis), hemoglobinopathies (sickle cell anemia, thalassemia). Hemorrhagic syndromes in pediatrics: Coagulopathy (hemophilia). Immune rhombocytopenia. Etiology. Pathogenesis. Clinic. Diagnostics. Principles of therapy. Features of dental procedures for hemorrhagic syndromes
7.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	Functional disorders of the gastrointestinal tract in young children. Regurgitation and vomiting syndrome. Intestinal colic. Etiology. Diagnostics. Treatment. Diet therapy. Acid-dependent diseases in children: Chronic gastroduodenitis, Peptic and duodenal ulcer. GERD. Clinical and diagnostic criteria. Principles of therapy. Features of the oral mucosa in diseases of the gastrointestinal tract
8.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC– 10 PC – 1, PC – 3, PC – 8, PC – 9	Urinary tract infection: acute pyelonephritis, acute cystitis. Etiology. Clinical and diagnostic criteria. Differential diagnosis. Treatment. Glomerulonephritis in children. An approach to the diagnosis of hematuria and proteinuria in children.
9.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC –	Acute intestinal infections (AII) in children. Classification. Features of the clinic and conditions associated with AII. Differential diagnosis. Complications (exicosis with toxicosis). Types and severity of

	5, GPC- 7, GPC-10 PC – 1, PC – 3, PC – 8, PC – 9	dehydration. Principles of oral and parenteral rehydration. Features of diet therapy for AII.
10.	UC – 1, UC – 4, UC- 5 GPC – 4, GPC – 5, GPC- 7, GPC-10 PC – 1, PC – 3, PC – 8, PC – 9	Vaccination of infectious diseases in children. Concepts of active and passive immunization. Types of vaccines. Basic principles of vaccination. Vaccination calendar in different countries. Postvaccinal reactions and complications. Anaphylactic shock. Clinic. Emergency assistance. Final lesson.