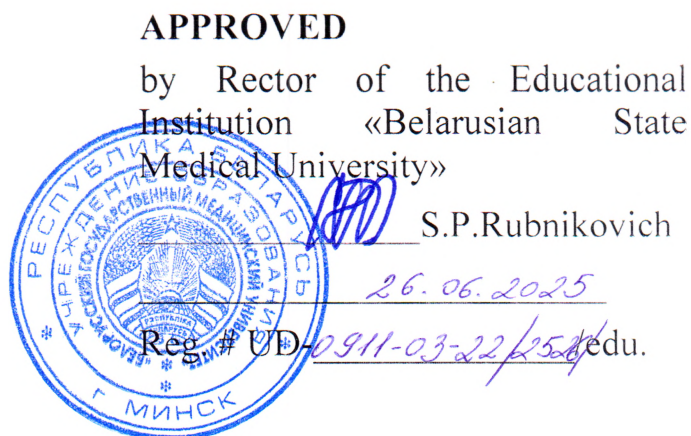


MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Educational Institution
«BELARUSIAN STATE MEDICAL UNIVERSITY»



PEDIATRICS

**Curriculum of the educational institution
in the academic discipline for the specialty**

7-07-0911-03 «Dentistry»

Curriculum is based on the educational program «Pediatrics», approved 26.06.2025, registration # УД-0911-03-22/2526/уч.; on the educational plan in the specialty 7-07-0911-03 «Dentistry», approved 16.04.2025, registration # 7-07-0911-03/2526/mf.

COMPILERS:

V.V.Strogy, Head of the Department of Childhood Propaedeutics of the Educational Institution «Belarusian State Medical University», DSc, Professor;

O.N.Volkova, Associate Professor of the Department of Childhood Propaedeutics of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

RECOMMENDED FOR APPROVAL:

by the Department Propaedeutics of Childhood Diseases of the Educational Institution «Belarusian State Medical University»
(protocol # 12 of 31.03.2025);

by the Scientific and Methodological Council of the Educational Institution «Belarusian State Medical University»
(protocol #10 of 26.06.2025)

EXPLANATORY NOTE

«Pediatrics» is the academic discipline of the module «General Clinical Therapy Module # 1», which contains systematized scientific knowledge about the etiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention of the main diseases of organs and systems in children.

The aim of the academic discipline «Pediatrics» is the formation of basic professional competencies for examining children and adolescents and providing them with medical care in emergency situations.

The objectives of the academic discipline «Pediatrics» are to form students' scientific knowledge of the anatomical and physiological characteristics of the organs and systems of the child's body at different ages; the causes, risk factors and mechanisms of development of the main diseases in children; factors influencing the health of children and adolescents; clinical manifestations of diseases in childhood; basic diagnostic methods, principles of treatment and disease prevention in children; and the skills and abilities necessary for:

- conducting a physical examination of a child;
- assessing the child's objective status;
- interpretation of laboratory and instrumental research results;
- providing medical care for conditions that pose a threat to human life and/or health.

Relations to other academic disciplines

The knowledges, skills and abilities acquired during the study of the academic discipline «Pediatrics» are necessary for successful completion of the following academic disciplines: «Internal Medicine», «Infectious Diseases», «Neurology and Neurosurgery», «Dermatovenereology» and the academic disciplines of the «Pediatric Dentistry» module.

A student who has mastered the content of the academic discipline «Pediatrics» should possess the following basic professional competencies: use knowledge about the etiology and pathogenesis, clinical manifestations, complications, methods of diagnosis and differential diagnosis, apply the principles of treatment and prevention in diseases and injuries in adults and children, provide medical care in emergency conditions.

As a result of studying the academic discipline «Pediatrics» the student should

know:

- the goals, objectives, structure and organization of medical care in outpatient and inpatient settings for children and adolescents in the Republic of Belarus;
- the anatomical and physiological characteristics of the organs and systems of the child's body;
- the etiology, pathogenesis, clinical presentation, diagnostic methods and treatment principles according to clinical guidelines for the most common diseases in children and adolescents;
- principles of medical prevention of the most common diseases in children and adolescents;
- rules of medical ethics and deontology;

be able to:

collect and analyze a medical history and illness;

assess the child's objective status;

conduct a physical examination of the child;

assess the functional capabilities of the child's body;

interpret the results of the most common laboratory and other research methods in pediatrics;

provide medical care for conditions that pose a threat to life and/or health;

master:

methods of physical examination of a child;

skills in providing medical care in emergency conditions in children.

Total number of hours for the study of the discipline is 108 academic hours, of which 43 classroom hours and 65 hours of student independent work. Classroom hours according to the types of studies: lectures – 18 hours (including 6 hours of supervised student independent work (SSIW)), practical classes – 25 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (5th semester).

Form of higher education – full-time.

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	Semester	Total number of academic hours	Number of classroom hours				Out-of-class self-studies	Form of intermediate assessment
			Number of classroom hours	including				
				class lectures	SSIW	practicals		
7-07-0911-03 «Dentistry»	5	108	43	12	6	25	65	Credit

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures (incl. SSIW)	practical
1. Goals, objectives, structure and organization of medical care for children in the Republic of Belarus	1,5	-
2. Anatomical and physiological characteristics of organs and systems of the body in children and adolescents	1,5	-
3. Principles of rational feeding of infants	1,5	3
4. Mineral metabolism diseases in young children. Rickets, spasmophilia, hypervitaminosis D`	3	-
5. Respiratory diseases	1,5	6
6. Allergic diseases	1,5	3
7. Cardiovascular diseases	1,5	3
8. Gastrointestinal diseases	1,5	3
9. Kidney and urinary tract diseases	1,5	3
10. Anemia	1,5	2
11. Emergencies in children and adolescents	1,5	2
Total hours	18	25

CONTENT OF THE EDUCATIONAL DISCIPLINE

1. Goals, objectives, structure and organization of medical care for children in the Republic of Belarus

Structure and organization of medical care for children in the Republic of Belarus (outpatient and hospital healthcare organizations): district level – central district hospital; interdistrict level – consultative and diagnostic departments at hospitals and outpatient and polyclinic organizations of large district cities; regional level – regional children's hospitals, consultative and diagnostic centers, dispensaries and rehabilitation centers; republican level – pediatric departments of specialized republican scientific and practical centers, including the Republican Scientific and Practical Center «Mother and Child», republican hospitals and rehabilitation centers. General educational institutions, sanatorium and specialized profile, summer children's health institutions, children's health centers, sanatoriums. The purpose and main objectives of providing medical care to children population, areas of work, medical documentation.

Key regulatory legal acts guaranteeing the rights of the child: the Constitution of the Republic of Belarus, the Code of the Republic of Belarus on Marriage and Family, the Laws of the Republic of Belarus «On Healthcare» and «On the Rights of the Child».

Issues of epidemiological safety of medical care provided. Hand hygiene.

2. Anatomical and physiological characteristics of organs and systems of the body in children and adolescents

Basic concepts of the anatomical and physiological characteristics (APC) of the respiratory, circulatory, digestive, urinary and hematopoietic systems in children at

different ages. The relationship between some APCs in children and adolescents and the characteristics of pathological processes in the child.

3. Principles of rational feeding of infants

Changes in the composition of breast milk: colostrum, transitional and mature milk and their characteristics.

Breastfeeding: advantages. Basic rules and techniques for breastfeeding.

Nutrition for a nursing mother. Specialized nutritional products for breastfeeding women. Vitamin and mineral supplements.

Hypogalactia: types. Causes of secondary hypogalactia. Recommendations for nursing mothers.

Physiological breast engorgement. Blocked milk duct: clinical manifestations and recommendations.

Complementary feeding: types, rules and timing of introduction. Mixed and artificial feeding. Types of formula for infants. Rules for mixed and artificial feeding. Feeding regimen for infants.

4. Mineral metabolism diseases in young children. Rickets, spasmophilia, hypervitaminosis D

The role of vitamin D in the human body.

Rickets: etiological and predisposing factors, clinical presentation, laboratory diagnostics, treatment principles. Antenatal and postnatal prevention of rickets.

Hypervitaminosis D: etiological and predisposing factors, clinical manifestations, treatment principles, prevention.

Spasmophilia: etiology, pathogenesis, clinical presentation, laboratory diagnostics, emergency medical care, prevention.

5. Respiratory diseases

Acute respiratory infections in children and adolescents: etiology, pathogenesis, clinical manifestations, treatment principles, prevention. Acute bronchitis in children and adolescents: etiology, pathogenesis, clinical manifestations, treatment principles and prevention.

Acute pneumonia in children and adolescents: etiology, pathogenesis, clinical manifestations, treatment principles and prevention.

Acute respiratory failure in children and adolescents: etiology, pathogenesis, clinical manifestations, treatment principles and prevention.

Examination of the oral cavity and pharynx. Inspection and palpation of the lymph nodes of the head and neck. Interpretation of a complete blood count.

6. Allergic diseases

Food allergies and atopic dermatitis in children and adolescents: etiology, clinical manifestations, dietary therapy, treatment principles and prevention.

Bronchial asthma in children and adolescents: etiology, pathogenesis, classification, clinical features of bronchial asthma depending on the stage of the disease and treatment principles for bronchial asthma depending on the severity and stage of the disease. Allergic rhinitis in children and adolescents: etiology, clinical manifestations, treatment principles and prevention.

Interpretation of a complete blood count. Interpretation of a biochemical blood test.

7. Cardiovascular diseases

Acute rheumatic fever in children and adolescents: etiology, pathogenesis and clinical presentation. The importance of cardiac X-rays, electrocardiograms and ultrasound in the diagnosis of acute rheumatic fever. Complications, treatment principles, prognosis and prevention of acute rheumatic fever in children and adolescents.

Congenital heart defects in children and adolescents: etiology, classification, hemodynamics, clinical manifestations, diagnostic methods and treatment strategies.

Acute cardiovascular failure in children and adolescents.

Complete blood count interpretation. Biochemical blood test interpretation.

8. Gastrointestinal diseases

Epidemiology of non-infectious gastrointestinal diseases in children and adolescents.

Chronic gastritis, gastric ulcers and duodenal ulcers in children and adolescents: clinical presentation and course, modern diagnostic methods, treatment principles and prevention.

Oral and pharyngeal examination.

9. Kidney and urinary tract diseases

Acute and chronic pyelonephritis in children and adolescents: etiology, pathogenesis, clinical presentation, diagnostic methods, complications and outcomes and treatment principles.

Acute glomerulonephritis in children and adolescents: etiology, pathogenesis, clinical presentation, diagnostic methods and treatment principles.

Chronic glomerulonephritis in children and adolescents: etiology, pathogenesis, clinical presentation, diagnostic methods and treatment principles. Urinary tract infection in children and adolescents: etiology, pathogenesis, clinical presentation, diagnostic methods and treatment principles.

Acute and chronic renal failure in children and adolescents: clinical presentation, diagnostic methods and treatment principles.

Interpretation of a complete blood count. Interpretation of a blood biochemistry test. Interpretation of a complete urinalysis, Nechiporenko urinalysis, Addis-Kakovsky urinalysis, Zimnitsky urinalysis.

10. Anemia

Anemias in children and adolescents: classification. Iron deficiency anemia: etiology, pathogenesis, clinical and hematological characteristics, treatment principles and prevention.

Interpretation of a complete blood count. Interpretation of a blood biochemistry test.

11. Emergencies in children and adolescents

Hyperthermic and convulsive syndrome in children and adolescents: emergency medical care.

Acute allergic reactions in children (anaphylactic shock, acute urticaria, Quincke's edema): emergency medical care, prevention.

EDUCATIONAL DISCIPLINE «PEDIATRICS» CURRICULAR CHART

Section, topic #	Section (topic) name	Number of classroom hours		Supervised student independent work	Literature	Practical skill	Forms of control	
		lectures	practical				of practical skills	of current / intermediate assessment
	Lectures	12	-	6	-			
1.	Goals, objectives, structure and organization of medical care for children in the Republic of Belarus	-	-	1,5	1, 2, 9			Survey; electronic testing
2.	Anatomical and physiological characteristics of organs and systems in children and adolescents	-	-	1,5	1, 2, 9			Survey; electronic testing
3.	Principles of rational feeding of infants	1,5	-	-	1, 2, 9			
4.	Mineral metabolism disorders in young children. Rickets, spasmophilia, hypervitaminosis D	1,5	-	1,5	1, 2, 5, 9			Survey; electronic testing
5.	Respiratory diseases	1,5	-	-	1, 2, 9			
6.	Allergic diseases	1,5	-	-	1, 2, 9			
7.	Cardiovascular diseases	1,5	-	-	1, 2, 6, 8, 9			
8.	Gastrointestinal diseases	1,5	-	-	1, 2, 9			
9.	Kidney and urinary tract diseases	1,5	-	-	1, 2, 3, 4, 9			
10.	Anemia	1,5	-	-	1, 2, 7, 9			

11.	Emergencies in children and adolescents	-	-	1,5	1, 2, 9			Survey; electronic testing
	Practical classes	-	25	-	-			
3.	Principles of rational feeding of infants	-	3	-	1, 2, 9	Hand hygiene	Visual assessment of skill performance	Survey; electronic testing, abstract defense
5.	Respiratory diseases: Acute respiratory infections, acute bronchitis	-	3	-	1, 2, 9	1. Examination of the oral cavity and pharynx. 2. Examination of the skin and subcutaneous fat. 3. Examination and palpation of the lymph nodes of the head and neck	Solving situational problems *	Survey; electronic testing, abstract defense
5.	Respiratory diseases: Acute pneumonia. Acute respiratory failure	-	3	-	1, 2, 9	Interpretation of a complete blood count	Solving situational problems	Survey; electronic testing, abstract defense
6.	Allergic diseases	-	3	-	1, 2, 9	1. Interpretation of a complete blood count. 2. Interpretation of a biochemical blood test. 3. Examination of the skin and subcutaneous fat	Solving situational problems	Survey; electronic testing; paper defense
7.	Cardiovascular diseases	-	3	-	1, 2, 6, 8, 9	1. Determination and counting of the pulse on the radial and carotid arteries. 2. Measurement of blood pressure. 3. Interpretation of a complete blood count. 4. Interpretation of a biochemical blood test	Solving situational problems *	Survey; electronic testing; abstract defense

8.	Gastrointestinal diseases	-	3	-	1, 2, 9	Examination of the oral cavity and pharynx	Solving situational problems	Survey; electronic testing; abstract defense
9.	Kidney and urinary tract diseases	-	3	-	1, 2, 3, 4, 9	1. Interpretation of a complete blood count. 2. Interpretation of a biochemical blood test. 3. Interpretation of a general urine analysis. 4. Interpretation of urine analysis according to Nechiporenko. 4. Interpretation of urine analysis according to Addis-Kakovsky. 5. Interpretation of urine analysis according to Zimnitsky	Solving situational problems	Survey; electronic testing; abstract defense *
10. 11.	Anemia. Emergencies in children and adolescents	-	4	-	1, 2, 7, 9	1. Interpretation of a complete blood count. 2. Interpretation of a biochemical blood test. 3. Maintaining medical records	Solving situational problems	Survey; electronic testing; abstract defense. Credit
Total hours for the academic discipline		12	25	6	-			

*This is a mandatory form of current certification.

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic (relevant):

1. Kozyro, I. A. Pediatric diseases : a textbook for international students / I. A. Kozyro. – BSMU, 2024. – 346 p.

Additional:

2. Pediatrics : textbook / N. S. Paramonova, [et al.]. – Minsk : New knowledge, 2021. – 597 p.
3. Kozyro, I. A. Acute and chronic renal failure (acute kidney injury and chronic kidney disease) in children. / I. A. Kozyro. – Minsk : BSMU, 2020. – 30 p.
4. Kozyro, I. A. Glomerulonephritis in children teaching aid / I. A. Kozyro. – Minsk : BSMU, 2017. – 20 p.
5. Kozyro, I. A. Spasmophilia and hypervitaminosis D : a teaching aid / I. A. Kozyro. – Minsk : BSMU, 2022. – 21 p.
6. Kozyro, I. A. Cardiac arrhythmias in children : teaching aid / I. A. Kozyro. – Minsk : BSMU, 2017. – 32 p.
7. Kozarezov, S. N. Anemia in children : a teaching aid / S. N. Kozaryozov. – Minsk : BSMU, 2021. – 20 p.
8. Kozaryozov, S. N. Hemorrhagic Diseases in Children : tutorial / S. N. Kozaryozov. – Minsk : BSMU, 2023. – 20 p.

Electronic courseware for the educational discipline «Pediatrics»

9. <https://etest.bsmu.by/course/view.php?id=1453>.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

Students may use the time allocated for independent work to:

- prepare for lectures and practical classes;
- prepare for a course test;
- research topics (questions) assigned for independent study;
- prepare thematic essays;
- take notes from course materials.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

APPROXIMATE LIST OF TASKS FOR SUPERVISED STUDENT INDEPENDENT WORK:

- preparing essays;
- taking notes on educational literature.

FORMS OF CONTROL OF SUPERVISED STUDENT INDEPENDENT WORK:

- survey;
- electronic testing.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms of current certification are used to diagnose competencies:
 survey;
 test quiz;
 electronic testing;
 paper defense;
 solving case studies.

LIST OF AVAILABLE TEACHING METHODS

Linear (traditional) method;
 Active (interactive) methods:
 Team-Based Learning (TBL);
 Case-Based Learning (CBL).

LIST OF PRACTICAL SKILLS

Name of the practical skill	Form of practical skills control
1. Examination of the oral cavity and pharynx	Solving situational problems
2. Examination of the skin and subcutaneous fat	Solving situational problems
3. Examination and palpation of the lymph nodes of the head and neck	Solving situational problems
4. Determination and counting of the pulse on the radial and carotid arteries	Solving situational problems
5. Interpretation of a complete blood count	Solving situational problems
6. Interpretation of a biochemical blood test	Solving situational problems
7. Interpretation of a general urine analysis	Solving situational problems
8. Interpretation of urine analysis according to Nechiporenko	Solving situational problems
9. Interpretation of urine analysis according to Addis-Kakovsky	Solving situational problems
10. Interpretation of urine analysis according to Zimnitsky	Solving situational problems
10. Measurement of blood pressure	Solving situational problems
11. Hand hygiene	Visual assessment of skill performance
12. Maintaining medical records	Solving situational problems

LIST OF SIMULATION EQUIPMENT USED

1. Manipulation table.
2. Antiseptic (imitation).
3. Disinfectant (imitation).
4. Electronic thermometer.
5. Mechanical tonometer.
6. Pulse oximeter.
7. Disposable spatulas.
8. Pocket inhaler (imitation).
9. Spacer.

**PROTOCOL OF THE CURRICULUM APPROVAL
BY OTHER DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum in the academic discipline	Decision of the department, which designed the curriculum (date, protocol #)
1. Internal Medicine	Propaedeutics of Internal Medicine	No additions or changes	Protocol #12 of 31.03.2025
2. Infectious Diseases	Infectious Diseases with a course in advanced training and advanced training	No additions or changes	Protocol #12 of 31.03.2025
3. Neurology and Neurosurgery	Neurology and Neurosurgery	No additions or changes	Protocol #12 of 31.03.2025
4. Dermatovenereology	Dermatovenereology and Cosmetology with a course in advanced training and advanced training	No additions or changes	Protocol #12 of 31.03.2025
5. Pediatric Dentistry	Pediatric Dentistry	No additions or changes	Protocol #12 of 31.03.2025
6. Pediatric Maxillofacial Surgery	Maxillofacial Surgery and Facial Plastic Surgery with a course in advanced training and advanced training	No additions or changes	Protocol #12 of 31.03.2025

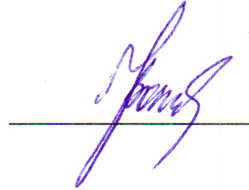
COMPILERS/AUTHORS:

Head of the Department of Childhood Propaedeutics of the Educational Institution «Belarusian State Medical University», DSc, Professor



V.V.Strogy

Associate Professor of the Department of Childhood Propaedeutics of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor



O.N.Volkova

Curriculum content, composition and the accompanying documents comply with the established requirements.

Head of the Office of Educational Activities of the Educational Institution «Belarusian State Medical University»

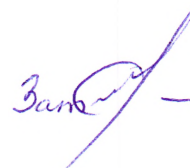
24.06.2025



I.L.Kotovich

Methodologist of the Educational and Methodological Department of the Office of Educational Activities of the Educational Institution «Belarusian State Medical University»

24.06.2025



S.V.Zaturanova