

MINISTRY OF HEALTH OF UKRAINE  
BUKOVINIAN STATE MEDICAL UNIVERSITY

«APPROVE»

Vice-Rector of higher educational  
establishment on Scientific and Pedagogical  
Work and International Relations

 Oksana GODOVANETS  
«20» 06 2025



SYLLABUS  
of studying the discipline

«PEDIATRIC DENTISTRY»

**Field of knowledge** 22 Health care  
**Specialty** 221 Dentistry  
**Educational degree** Doctor of Philosophy  
**Educational year** I, II, III  
**Form of study** full-time (day, evening), part-time  
**Department of** Pediatric Dentistry

Approved at a meeting of the Department of Pediatric Dentistry  
«23» 06 2025 (minutes No. 45).

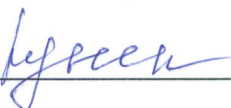
Head of the Department



Tetiana KITSACK

Approved by the subject methodical commission for dental disciplines of the Bukovinian  
State Medical University «26» 06 2025 (protocol No. 6).

Head of the subject methodical  
commission



Natalia KUZNIAK

## 1. GENERAL INFORMATION ABOUT SCIENTIFIC AND PEDAGOGICAL WORKERS WHO TEACH THE DISCIPLINE

<b>Department</b>	Pediatric Dentistry
<b>Surname, name of scientific and pedagogical staff, scientific degree, academic status</b>	Godovanets Oksana – Doctor of Medical Sciences, Professor, Professor of the Department of Pediatric Dentistry <a href="mailto:godovanec.oksana@bsmu.edu.ua">godovanec.oksana@bsmu.edu.ua</a> Kotelban Anastasiia – PhD, Associate Professor, Associate Professor of the Department of Pediatric Dentistry <a href="mailto:kotelban_anastasiia@bsmu.edu.ua">kotelban_anastasiia@bsmu.edu.ua</a>
<b>Department webpage on the official university website</b>	<a href="https://www.bsmu.edu.ua/stomatologiyi-dityachogoviku/">https://www.bsmu.edu.ua/stomatologiyi-dityachogoviku/</a>
<b>Department website</b>	<a href="https://sites.google.com/bsmu.edu.ua/childrens-dentistry-department/">https://sites.google.com/bsmu.edu.ua/childrens-dentistry-department/</a>
<b>Email</b>	<a href="mailto:dentistry_child@bsmu.edu.ua">dentistry_child@bsmu.edu.ua</a>
<b>Address</b>	Chernivtsi, 87, Ruska St.
<b>Contact phone</b>	+38 (050)0794102

## 2. GENERAL INFORMATION ABOUT THE DISCIPLINE

<b>Discipline status</b>	selective
<b>Number of credits</b>	12
<b>Total amount of hours</b>	360
<b>Lectures</b>	20
<b>Practical classes</b>	80
<b>Individual work</b>	260
<b>Type of final control</b>	test

## 3. DESCRIPTION OF THE ACADEMIC DISCIPLINE (ABSTRACT)

The educational discipline «Pediatric Dentistry» is aimed at forming in third-level higher education (PhD) applicants a comprehensive system of in-depth theoretical knowledge, practical skills, research and pedagogical competencies necessary to solve complex and interdisciplinary tasks in pediatric dentistry.

Special attention is paid to mastering the methodology of scientific activity, including planning and conducting one's own research aimed at solving a relevant scientific problem in pediatric dentistry. The results of such research must have scientific novelty and theoretical and practical significance for the development of modern dental science and clinical practice.

Pediatric dentistry is a highly specialized, multi-component field that requires not only deep knowledge, but also thinking and clinical approach from the specialist. Working with children requires a combination of high professional skills, empathy, communicative flexibility, the ability to make clinical decisions in the context of age-related anatomical and functional characteristics and specific behavioral reactions.

## 4. POLICY OF THE DISCIPLINE

### *List of normative documents:*

- Regulations on the organization of the educational process – <https://cutt.ly/ArUqCMFh>;
- Instructions for evaluating the educational activities of higher education applicants for the degree of Doctor of Philosophy of BSMU in the context of the implementation of the European Credit Transfer System for the organization of the educational process - <https://surl.li/acuduy>;
- Regulations on the procedure for making up missed and uncredited classes – <https://cutt.ly/jrUqBS36>;

- Regulations on appeal of the results of the final knowledge control of higher education applicants – <https://cutt.ly/3rUqMAbV> ;
- Code of Academic Integrity – <https://cutt.ly/FrUq1ljK> ;
- Regulations on the Prevention of Academic Plagiarism – <https://cutt.ly/MrUq6QAt> ;
- Regulations on the procedure and conditions for choosing elective disciplines by PHD students – <https://cutt.ly/srUwo6Ci> ;
- Regulations on the procedure for recognizing learning outcomes acquired through non-formal and/or informal education – <https://cutt.ly/SrUwpl1e> ;
- Rules of conduct for PHD students – <https://cutt.ly/ErUq72rZ> ;
- Internal labor regulations – <https://cutt.ly/UrUwiACe> ;
- Regulations on the training of candidates for the degree of Doctor of Philosophy and Doctor of Science in higher education – <https://surl.lu/aygfsk> ;
- Regulations on the procedure for awarding the degree of Doctor of Philosophy and the cancellation of the decision of the one-time specialized academic council at the Bukovinian State Medical University <https://surl.li/zoclfj> ;
- Regulations on the Commission on Biomedical Ethics <https://surl.lt/hcmnln> ;
- Regulations on primary documentation and the commission for checking primary documentation of scientific research at the Bukovinian State Medical University <https://surl.li/dgjnpe> .

#### ***4.2 Policy on adherence to the principles of academic integrity of PHD students***

- independent completion of individual tasks and correct citation of sources of information when borrowing ideas, statements, and information;
- creating an effective system for preventing and detecting academic plagiarism in scientific papers.

#### ***4.3 Policy on adherence to the principles and norms of ethics and deontology by PHD students:***

- actions in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology;
- compliance with the university's internal regulations and rules of conduct for PHD students, being tolerant, friendly, and considerate in communicating with PHD students and staff of departments, healthcare institutions, etc.;
- awareness of the significance of examples of human behavior in accordance with the norms of academic integrity and medical ethics.

#### ***4.4. Attendance policy for PHD students:***

- Attendance at all classes (lectures, practical classes) is mandatory for the purpose of ongoing and final assessment of knowledge (except for good reasons).

#### ***4.5. Deadline policy and completion of missed or uncredited classes by PHD students:***

- Making up for missed classes takes place according to the schedule for making up for missed or uncredited classes and consultations.

### **5. PRECISIONS AND POST-REQUIREMENTS OF THE DISCIPLINE (INTERDISCIPLINARY RELATIONS)**

<b>List of academic disciplines on which the study of the academic discipline is based</b>	<b>List of academic disciplines for which the foundation is laid as a result of studying the academic discipline</b>
Propaedeutics of pediatric therapeutic dentistry	A comprehensive system for preventing dental diseases

Prevention of dental diseases	
Pediatric therapeutic dentistry	

## 6. PURPOSE AND TASKS OF THE DISCIPLINE:

6.1 . **The purpose** of teaching the academic discipline is to form in applicants of the third level of higher education ( PhD ) comprehensive scientific and theoretical knowledge, analytical thinking and research skills necessary for a deep understanding of the etiological, pathogenetic, morpho- functional and biological processes underlying the development of dental diseases in children, as well as for assessing the impact of these processes on the formation and functional state of the dento-maxillary system in different age periods.

The discipline is aimed at developing in future scientists the ability to integrate fundamental knowledge in pediatric dentistry, pediatrics, physiology, biochemistry, microbiology, orthodontics , preventive medicine, and digital technologies.

Special emphasis is placed on providing evidence-based strategies for prevention, early intervention, minimally invasive treatment, and management of complicated forms of caries in primary and permanent teeth in children, which contributes to the stable maintenance of dental health and optimal formation of the dentofacial system.

### 6.2 . The main **tasks** of studying the discipline are:

- identifying current scientific problems and promising areas of development of modern pediatric dentistry, forming one's own vision of the theoretical and practical challenges of the industry, proposing new research approaches and innovative solutions.

- mastering the methodology of scientific research, including modern approaches to planning, organizing, collecting and analyzing scientific information; mastering and applying the latest methods of experimental, clinical and laboratory research that meet the requirements of evidence-based medicine and world standards of pediatric dentistry.

- mastering modern, high-tech and evidence-based methods of treating dental diseases in children, improving skills in the use of bioactive materials, minimally invasive technologies, digital diagnostic and treatment tools, as well as early intervention methods.

- determination of the leading etiological and pathogenetic factors of clinical pathology of the maxillofacial region in children, analysis of the relationships and their role in the formation of dental and general somatic disorders.

- identification and interpretation of key clinical symptoms of caries and its complications in primary and permanent teeth, using data from the anamnesis, clinical examination, age-related anatomical and functional features, and principles of differential diagnosis to establish a preliminary or probable clinical diagnosis.

- formation of a rational plan for examining the child, analysis of the results of laboratory, radiological, digital and instrumental examinations, assessment of their diagnostic informativeness, interpretation of data to determine treatment tactics and predict the course of the disease.

- conducting differential diagnostics of dental diseases in children, formulating a clinical diagnosis taking into account age characteristics, concomitant pathology and modern protocols.

- determining the optimal tactics for managing children with somatic diseases that manifest in the oral cavity, taking into account interdisciplinary approaches, risks, and features of the dentist's interaction with pediatricians, otolaryngologists, geneticists, speech therapists, and other specialists.

- diagnosing and providing emergency dental care to children with acute inflammatory processes, dental and soft tissue injuries, acute pain syndromes, allergic and drug-induced reactions, adhering to the principles of safe and emergency medical care.

- implementation of primary, secondary and tertiary prevention of dental diseases, organization of medical examinations of the child population, planning of preventive programs and

rehabilitation measures, evaluation of their effectiveness and implementation of modern public health models.

## **7. COMPETENCIES, THE FORMATION OF WHICH IS CONTRIBUTED BY THE DISCIPLINE:**

***Integral:*** The ability to produce new ideas, solve complex problems of dentistry and related interdisciplinary problems, apply the methodology of scientific and pedagogical activities, as well as conduct one's own scientific research, the results of which have scientific novelty, theoretical and practical significance.

### ***General:***

GC02. Ability to search, process and analyze information from various sources.

GC03. Ability for abstract thinking, analysis and synthesis.

GC04. Ability to work in an international context.

### ***Special (professional):***

SC01. Ability to perform original research, achieve scientific results that create new knowledge in dentistry and related areas of medicine and can be published in leading international scientific publications.

SC 02. Ability to initiate, develop and implement complex innovative projects in the field of dentistry and related interdisciplinary projects.

SC05. The ability to generate new ideas for the development of the theory and practice of dentistry, identify problems, pose and solve research problems in the field of health care, evaluate and ensure the quality of research performed in dentistry.

SC06. Ability to apply modern digital technologies, databases and other electronic resources, specialized software in scientific and educational activities.

SC07. Ability to critically analyze, evaluate, and synthesize new and complex ideas in the field of dentistry and related interdisciplinary issues.

SK08. Ability for continuous self-development and self-improvement.

## **8. RESULTS OF STUDYING THE DISCIPLINE.**

The academic discipline ensures the formation of the following program learning outcomes:

LO01. Have conceptual and methodological knowledge in dentistry and at the border of subject areas, as well as research skills sufficient to conduct scientific and applied research at the level of the latest world achievements in the relevant field, obtain new knowledge and/or implement innovations.

LO02. To deeply understand the general principles and methods of human health sciences, the main trends in their development, as well as the methodology of scientific research, to apply them in their own scientific research in the field of dentistry and in teaching practice.

LO04. Formulate and test hypotheses; use appropriate evidence to substantiate conclusions, in particular, the results of theoretical analysis, experimental studies, statistical data analysis, and available literature data.

LO05. Apply modern tools and technologies for searching, processing and analyzing medical and biological information, in particular, statistical methods for analyzing large-scale and/or complex data, specialized databases and information systems.

LO06. Apply general principles and methods of research in the field of health care, as well as modern methods and tools, digital technologies and specialized software to conduct research in the field of dentistry.

LO07. Develop and implement scientific and/or innovative medical projects that provide an opportunity to rethink existing and create new holistic knowledge and/or professional practice and solve significant problems in the field of medicine.

LO09. Plan and carry out research in dentistry and related interdisciplinary areas using modern tools and adhering to the norms of professional and academic ethics, bioethics, and good clinical practice (GMP), critically analyze the results of one's own research and the results of other researchers in the context of the entire complex of modern knowledge.

LO10. Develop and research models of processes and systems, effectively use them to obtain new knowledge and/or create innovative products in the field of dentistry and in related interdisciplinary areas.

As a result of studying the academic discipline, the PHD student must:

***Know:***

- conceptual and methodological knowledge in a field or at the border of fields of knowledge or professional activity

***Be able to:***

- solve significant problems in the field of professional activity, science and/or innovation, expand and reassess existing knowledge and professional practices;
- initiate, plan, implement, and revise a consistent process of sound scientific research with due academic integrity;
- critically analyze, evaluate, and synthesize new and complex ideas.

***Demonstrate:***

- free communication on issues related to the field of scientific and expert knowledge with colleagues, the broader scientific community, and society as a whole.
- significant authority, innovation, a high degree of independence, academic and professional integrity, consistent commitment to the development of new ideas or processes in advanced contexts of professional and scientific activity;
- the ability for continuous self-development and self-improvement.

## **9. INFORMATIONAL SCOPE OF THE DISCIPLINE «PEDIATRIC DENTISTRY»**

**Content module 1.** «Modern principles of patient management in Pediatric Dentistry Clinic. Digital diagnostics, minimally invasive dental caries treatment strategies and evidence-based prevention methods.

***Specific objectives:***

- To master modern principles of organizing dental care for children, taking into account age, behavioral, psycho-emotional and medical characteristics.
- Apply digital diagnostic methods (fluorescence and laser diagnostics, digital transillumination, 3D visualization, photo documentation) in detecting caries and monitoring the condition of hard dental tissues.
- Assess the individual risk of developing dental caries according to modern international systems (CAMBRA, ICCMS) and develop personalized preventive strategies based on them.
- Master the principles of minimally invasive treatment (Minimal Intervention Dentistry): remineralization, infiltration techniques, ART, SMART, selective removal of affected dentin.
- Develop modern strategies for primary and secondary prevention, including fluoride prophylaxis, sealant strategies, prevention of erosive lesions, and biofilm control programs.
- Conduct scientific analysis of the effectiveness of various treatment and prevention protocols, critically evaluating current international recommendations.

**Topic 1. Modern ideas about the anatomical and physiological development of the dentofacial system in children. Age-related aspects of tooth formation and mineralization: modern biological mechanisms, risks and clinical consequences.**

The article describes current data on embryogenesis and postnatal development of teeth; biomineralization and its regulation; the influence of systemic factors, nutrition, metabolism, hormonal profile, genetic and epigenetic mechanisms on the quality of enamel and dentin; the causes of mineralization disorders (MIN, hypoplasia), their early markers and diagnostic significance.

**Topic 2. Modern models of organizing care for children in dentistry (patient-centered care, family-centered care, minimally invasive dentistry, principles of biobehavioral interaction with patients).**

Introduction to modern models of child care (family-centered care, behavior guidance, anxiety control), with the principles of safe and ethical communication, taking into account the psychological characteristics of different age groups, stratification of patients according to behavioral risks and the formation of an individual approach to treatment.

**Topic 3. Dental caries in children: a modern concept of the microbiome, biofilm and behavioral risk factors.**

The molecular aspects of the formation of the oral microbiome in children are considered; the role of biofilm and dysbiosis; modern integrative models of dental caries development; the influence of nutrition, behavioral and social factors; digital analysis of biofilm ; risk predictors and their clinical significance, the role of the immune response, microbiome, metabolic disorders; modern approaches to risk stratification and prediction of complications.

**Topic 4. Clinical features of the course of caries in primary and permanent teeth: modern pathogenetic analysis.**

The age-related patterns of the course of the carious process are highlighted; the influence of anatomical and morphological features of primary and permanent teeth on the rate of progression of dental caries in children; and clinical and diagnostic criteria for different stages.

**Topic 5. Modern diagnostics of dental caries in children: digital technologies, early markers of damage, differential diagnostics.**

Digital diagnostic methods are considered (IOS, QLF, DIAGNOdent , AI- assisted systems); classification of lesions according to ICDAS/ICCMS; algorithms for early detection of non-cavitating lesions; differential diagnosis of dental caries with MIN, hypoplasia , fluorosis, erosions, traumatic defects; multifactorial data analysis for predicting the progression of dental caries.

**Topic 6. Integrative approach to differential diagnosis of dental caries in childhood.**

Modern clinical, instrumental and digital methods for accurate diagnosis are described; algorithms for differentiating dental caries with structural enamel defects, MIN, injuries, erosions, infectious and metabolic lesions; the role of AI systems in diagnostic support; the formation of evidence-based diagnostic tactics in complex clinical cases.

**Topic 7. Evidence-based protocols for primary, secondary and tertiary prevention of dental diseases in children (CAMBRA, ICCMS, Atraumatic Restorative Treatment, Silver Diamine Fluoride).**

The principles of primary, secondary and tertiary prevention according to CAMBRA, ICCMS standards, algorithms for assessing individual risks of dental caries and other pathologies are highlighted. Introduction to the principles of forming personalized preventive programs using modern methods (SDF, fluoride varnishes, fissure sealing, probiotics, remineralization).

**Topic 8. Strategies for treating dental caries in children using minimally invasive technologies: ART, fissure sealants, resins infiltration, selective caries removal, stepwise excavation.**

Modern methods of minimal intervention in the treatment of dental caries are described. Introduction to the biochemical properties of modern materials (hybrid systems, bioactive composites, SAR- bioglass ), criteria for their selection, clinical tactics according to age, behavioral status and clinical situation.

**Content module 2.** « Comprehensive management of non-carious lesions, complicated forms of caries and dental injuries in children: evidence-based approaches and innovative treatment methods»

*Specific objectives:*

- To identify etiological, genetic, metabolic and environmental factors that cause non-carious lesions of enamel and dentin (hypoplasia, MIH, fluorosis , erosion, abfraction).
- To master modern instrumental and laboratory methods for diagnosing non-carious lesions, including spectrometric and digital methods.
- To form interdisciplinary diagnostic algorithms taking into account the participation of a geneticist, endocrinologist, gastroenterologist, and dermatologist.

- To assess the biological and microbiological aspects of dental caries complications, to determine the pathogenetic mechanisms of pulpitis and periodontitis development in primary and permanent teeth.
- Possess modern protocols «vital pulp therapy» (direct and indirect pulp capping, partial/complete pulpotomy, regenerative techniques), taking into account age-related characteristics.
- Use new generation bioactive materials (MTA, Biodentine, bioceramics) in the treatment of complicated dental caries.
- Master the international dental trauma management protocols (IADT Guidelines).
- Learn to predict the course and consequences of dental trauma in different age periods using modern risk assessment models.
- To evaluate the clinical effectiveness of various endodontic and trauma treatment protocols from the perspective of evidence-based medicine.

**Topic 9. Non-carious lesions of hard dental tissues in children: structural and genetic defects of enamel and dentin, MIH, metabolic disorders, erosive lesions, abfractions, hypoplasias, fluorosis. Modern methods of diagnosis, risk stratification and clinical management.**

Multifactorial mechanisms of the formation of non-carious lesions in children are considered: genetically determined defects (amelogenesis imperfecta, dentinogenesis imperfecta), hypomineralization of MIH, the influence of metabolic disorders, the erosive potential of nutrition, mechanical factors of abfraction. Diagnostic methods (clinical, radiological, 3D-scanning), approaches to risk classification and stratification, protocols for minimally invasive and restorative management, the use of bioactive materials and remineralizing technologies are analyzed.

**Topic 10. Biological, microbiological and immunological aspects of complications of caries of primary teeth in children. Modern strategies for the treatment of pulpitis and periodontitis based on the principles of biologically oriented therapy (vital pulp therapy).**

Comprehensive analysis of microbiological mechanisms of caries progression and formation of complications in primary teeth; the role of the microbiome, virulent factors and the immune response of the child's body. Modern approaches to the management of pulpitis and periodontitis of primary teeth from the standpoint of minimal invasiveness and biological feasibility. Principles of «vital pulp therapy» in childhood (direct and indirect pulp capping, partial and complete pulpotomy), the use of bioactive calcium silicate materials (MTA, Biodentine, bioceramics), their physicochemical properties and clinical effectiveness. Modern algorithms for clinical decision-making and treatment protocols in accordance with evidence-based recommendations.

**Topic 11. Complicated caries of permanent teeth in children: modern approaches to biological treatment, vital pulp therapy and regenerative endodontics.**

Study of the features of microbiology, pathogenesis and immune response in caries complications in permanent teeth; the role of apical development (apexogenesis, apexification) in the choice of treatment tactics. Modern regenerative and biologically oriented approaches to the treatment of pulpitis and periodontitis: methods of preserving pulp viability, stimulation of continued root development, use of new generation bioactive materials (MTA, Biodentine, bioceramics) and guided technologies endodontic repair. Vital effectiveness assessment pulp therapy in permanent teeth in children based on modern clinical protocols, international recommendations and evidence-based data.

**Topic 12. Management of children with special needs, comorbid somatic, neurological and immune disorders. Behavioral strategies, pharmacological behavior modification and sedation under general anesthesia.**

The principles of dental care for children with disabilities, neurobehavioral disorders (autism, ADHD, cerebral palsy), chronic somatic pathology (cardiological, endocrine, hematological diseases) and primary/secondary immunodeficiencies are studied. Modern models of behavioral management, methods of pharmacological sedation, features of work under general anesthesia are considered. Emphasis is placed on interdisciplinary safety algorithms, monitoring and adapted clinical protocols.



**Topic 13. Modern protocols for the treatment of traumatic dental injuries in children according to IADT Guidelines: algorithms for early diagnosis, risk stratification and clinical management.**

Modern approaches to the initial assessment of trauma are considered: rapid diagnosis, triage, photo documentation, digital occlusal assessment; short-term and long-term risk stratification; management of dislocations, subluxations, extrusions, lateral dislocations, crown, root, and alveolus fractures; protocols for preserving pulp viability in children; indications and techniques for replantation, preservation of the periodontium, use of special storage media; control and monitoring after treatment according to digital and clinical criteria.

**Topic 14. Biomaterials and innovative technologies in pediatric dental traumatology: modern splints, bioactive cements, adhesive and minimally invasive restoration techniques.**

Modern splinting materials and techniques (flexible, combined, 3D-printed structures), principles for choosing the duration of immobilization are described. The properties of bioactive cements, adhesive systems, bioceramics and minimally invasive Methods of reconstruction of injured teeth. Innovative technologies are considered: computer planning of restorations, use of CAD/CAM and new generation photopolymer composites.

**Content module 3. «Diseases of periodontal tissues and oral mucosa in children: modern strategies for diagnosis, prevention and treatment.»**

***Specific objectives:***

- To master modern concepts of periodontal tissue development in children, including genetic, immunological, microbiome, and systemic risk factors.
- Use modern methods of diagnosing periodontal tissue diseases: digital periodontography, microbiological tests, immunological markers, laser diagnostics.
- Differentiate gingivitis and periodontitis in children according to AAP/EFP recommendations.
- Apply modern methods of treating periodontal diseases in children, including minimally invasive scaling, ultrasound therapy, lasers, photodynamic therapy, probiotic and biomodulation methods.
- Evaluate the effectiveness of comprehensive prevention programs, including behavioral modification, microbiome regulation, and biofilm control.
- Conduct differential diagnostics of lesions of the ENT system using modern laboratory and digital methods.
- Form interdisciplinary patient routes (collaboration with pediatricians, infectious disease specialists, gastroenterologists, allergists, dermatologists).

**Topic 15. Modern ideas about periodontal development in children: morphogenesis, risk factors, the role of the microbiome, genetic and immunological determinants in the occurrence of periodontal pathology.**

It analyzes current data on the formation of periodontal tissue structures in ontogenesis, age-related morphofunctional features, risk factors for periodontal diseases in childhood. The role of the oral microbiome, genetic mutations, epigenetic factors, immune response and systemic conditions in the development of gingivitis and periodontitis is considered. The results of recent studies, including metagenomic analysis, associations with systemic diseases and immune dysfunctions, are discussed.

**Topic 16. Diagnosis of gingivitis and periodontitis in children: modern clinical, instrumental, laboratory and digital methods.**

The latest diagnostic analysis technologies are studied: microbiological panels (PCR, qPCR, NGS), inflammatory biomarkers (IL-1 $\beta$ , TNF- $\alpha$ , MMP-8), laser-optical and fluorescent methods of tissue assessment, digital periodontography taking into account the peculiarities of jaw growth. International classifications and risk stratification criteria, screening and monitoring algorithms are analyzed.

**Topic 17. Modern management of periodontal tissue diseases in children: mechanical therapy protocols, photodynamic technologies and methods for preventing relapses.**

Modern scaling and polishing protocols in children, minimally invasive methods of mechanical biofilm removal, and the possibilities of photodynamic therapy and laser technologies (diode) are considered. laser, Er:YAG). The use of probiotics, prebiotics, biomodifiers (enamel-like proteins, tissue remodeling factors), relapse prevention protocols, and individualized oral hygiene strategies are being studied.

**Topic 18. Bacterial and viral lesions of the oral mucosa in children: etiological mechanisms, pathogenesis, clinical picture, diagnostics and management tactics.**

The features of the course of viral lesions of the ENT organs in children of different ages, the mechanisms of viral replication, reactivation and immune response, the role of concomitant somatic conditions are highlighted. Modern diagnostic methods (virology, PCR, serology), clinical forms of lesions and principles of early detection are considered.

The manifestations of SOP in scarlet fever, diphtheria, measles, rubella, COVID-19, bacterial and opportunistic infections are studied. Specific orofacial signs, the role of microbial toxins and systemic reactions of the body are analyzed. Diagnostic algorithms and risk groups are considered.

**Topic 19. Diseases of the lips and tongue in children: etiology, clinical variants, diagnostic criteria and treatment. Allergic manifestations in the oral cavity of children: etiology, clinical forms, differential diagnosis and modern methods of treatment.**

Inflammatory, infectious, traumatic and structural lesions of the lips and tongue are described; cheilitis, glossitis, angular cheilitis, fissured tongue, geographic tongue, frenulum anomalies. Modern approaches to diagnosis, functional assessment, and treatment are analyzed, including multidisciplinary aspects.

Immediate and delayed allergic reactions, contact stomatitis, drug reactions, food allergies, manifestations of atopic conditions are considered. Modern approaches to diagnostics (allergy tests, molecular diagnostics), treatment and prevention strategies are analyzed.

**Topic 20. Interdisciplinary approaches to the management of oral and maxillofacial diseases in children: algorithms for the interaction of a pediatric dentist with pediatricians, infectious disease specialists, dermatologists, allergists, gastroenterologists and other specialists.**

Comprehensive clinical patient pathways, principles of interdisciplinary communication, and the role of allied health professionals in diagnosing systemic causes of oral lesions are explored. Integration of dental data into systemic diagnostics, multidisciplinary consultations, and models of long-term follow-up are discussed.

## 10. STRUCTURE OF THE ACADEMIC DISCIPLINE

Names of content modules and topics	Number of hours			
	Total	including		
		Classrooms		Individual work
		Lectures	Practical classes	
1	2	3	4	5
<b>Module 1. «Pediatric Dentistry»</b>				
<b>Content module 1.</b>				
« Modern principles of patient management in Pediatric Dentistry Clinic. Digital diagnostics, minimally invasive dental caries treatment strategies and evidence-based prevention methods.				
<b>Lecture topic 1.</b> Modern aspects of the development and formation of the dentofacial system in childhood. <b>Topic of practical lesson 1.</b> Modern ideas about the anatomical and physiological development of the dento-maxillary system in children. Age-related aspects of tooth formation and mineralization:	16	2	3	11

<p>modern biological mechanisms, risks and clinical consequences.</p> <p><b>Topic of Individual work 1.</b> Analysis of molecular mechanisms of amelogenesis and dentinogenesis : genetic regulators, cellular processes, critical periods of development. The role of digital methods in assessing the development of the dentofacial system (CBCT, digital models).</p>				
<p><b>Lecture Topic 2.</b> Modern Pediatric Dentistry: Patient and Family Focus, Minimally Invasive and Biobehavioral Approaches.</p> <p><b>Practical lesson topic 2.</b> Modern models of organizing care for children in dentistry (patient-centered care, family-centered care, minimally invasive dentistry, principles of biobehavioral interaction with patients).</p> <p><b>Topic of Individual work 2.</b> Biobehavioral protocols of interaction with patients of different age groups: modern approaches, VR technologies, cognitive -behavioral strategies.</p>	16	2	3	11
<p><b>Practical lesson topic 3.</b> Dental caries in children: a modern concept of the microbiome, biofilm and behavioral risk factors.</p> <p><b>Individual work topic 3.</b> Molecular mechanisms formation and stability of dental biofilm; principles of its modulation in clinical practice.</p>	14	-	4	10
<p><b>Practical lesson topic 4.</b> Clinical features of the course of caries in primary and permanent teeth: modern pathogenetic analysis.</p> <p><b>Topic of Individual work 4.</b> Analysis of biological and behavioral triggers of rapidly progressive dental caries in children («early childhood «caries», «rapid caries progression»).</p>	14	-	4	10
<p><b>Lecture topic 3.</b> Current approaches to detecting caries in childhood: pathobiology of the process, early diagnosis, digital tools, and differentiation between carious and non-carious lesions.</p> <p><b>Practical lesson topic 5.</b> Modern diagnostics of dental caries in children: digital technologies, early markers of damage, differential diagnostics.</p> <p><b>Topic of Individual work 5.</b> Models for predicting the course of dental caries: interpretation, risks, clinical significance.</p>	16	2	3	11

<b>Practical lesson topic 6.</b> Integrative approach to differential diagnosis of dental caries in childhood. <b>Topic of Individual work 6.</b> Biomechanical, structural and biochemical differences between carious and non-carious lesions: a review of evidence-based protocols.	14	-	3	11
<b>Lecture topic 4.</b> Prevention of dental diseases in children: levels of prevention, international risk assessment systems and minimally invasive preventive interventions. <b>Practical lesson topic 7.</b> Evidence-based protocols for primary, secondary and tertiary prevention of dental diseases in children (CAMBRA, ICCMS, Atraumatic Restorative Treatment , Silver Diamine Fluoride ). <b>Topic of Individual work 7.</b> Comparative analysis of preventive and minimally invasive strategies in pediatric dentistry:	16	2	4	10
<b>Practical lesson topic 8.</b> Strategies for treating dental caries in children using minimally invasive technologies: ART, fissure sealants , resins infiltration , selective caries removal , stepwise excavation . <b>Topic of Individual work 8.</b> Selective removal of carious tissues and stepwise excavation : biological rationale and clinical protocols.	14	-	4	10
<b>Content module 2.</b> «Comprehensive management of non-carious lesions, complicated forms of caries and dental injuries in children: evidence-based approaches and innovative treatment methods»				
<b>Practical lesson topic 9.</b> Non-carious lesions of hard dental tissues in children: structural and genetic defects of enamel and dentin, MIH, metabolic disorders, erosive lesions, abfractions , hypoplasias, fluorosis . Modern methods of diagnosis, risk stratification and clinical management. <b>Topic of Individual work 9.</b> Genetic and epigenetic mechanisms of formation of structural defects of enamel and dentin (amelogenesis imperfecta, dentinogenesis imperfecta): modern diagnostic biomarkers and clinical approaches.	20	-	5	15
<b>Lecture topic 5.</b> Pathobiology of complications of caries of primary teeth in children and modern biologically oriented	20	2	4	14

<p>methods of treatment of pulp and periapical tissues.</p> <p><b>Practical lesson topic 10.</b> Biological, microbiological and immunological aspects of complications of caries of primary teeth in children. Modern strategies for the treatment of pulpitis and periodontitis based on the principles of biologically oriented therapy («vital pulp therapy»).</p> <p><b>Topic of Individual work 10.</b> Bioactive materials for pulp treatment of primary teeth: MTA, Biodentine, Bioceramics – evidence base and comparative characteristics.</p>				
<p><b>Lecture topic 6.</b> Complicated forms of caries of permanent teeth in children: pathogenesis, biological treatment, preservation of pulp viability and regenerative technologies.</p> <p><b>Practical lesson topic 11.</b> Complicated caries of permanent teeth in children: modern approaches to biological treatment, « vital pulp therapy » and regenerative endodontics .</p> <p><b>Topic of Individual work 11.</b> Regenerative endodontics in children: concepts of Revitalization, REPs, scaffold-based therapy; clinical results and limits of application.</p>	20	2	4	14
<p><b>Practical lesson topic 12.</b> Management of children with special needs, comorbid somatic, neurological and immune disorders. Behavioral strategies, pharmacological behavior modification and sedation under general anesthesia.</p> <p><b>Topic of Individual work 12.</b> Sedation and treatment under general anesthesia in children with high behavioral risks: modern AAPD/ASA protocols, medical risk assessment (ASA Classification ), post-anesthesia safety and interdisciplinary clinical decision-making algorithm.</p>	19	-	4	15
<p><b>Lecture topic 7.</b> Dental injuries in childhood: modern principles of diagnosis, treatment and prognosis according to international recommendations.</p> <p><b>Practical lesson topic 13.</b> Modern protocols for the treatment of traumatic dental injuries in children according to IADT Guidelines : algorithms for early</p>	21	2	5	14

diagnosis, risk stratification and clinical management. <b>Topic of Individual work 13.</b> Modern splints for stabilizing injured teeth: materials, indications, biomechanics and terms of use.				
<b>Lecture topic 8.</b> Innovative biomaterials and technological solutions in the treatment of traumatic dental injuries in children. <b>Practical lesson topic 14.</b> Biomaterials and innovative technologies in pediatric dental traumatology: modern splints, bioactive cements, adhesive and minimally invasive restoration techniques. <b>Topic of Individual work 14.</b> Bioactive materials in the reconstruction of injured teeth: MTA, Biodentine , glass ionomers , composites with remineralizing potential.	20	2	4	14
<b>Content module 3.</b> «Diseases of periodontal tissues and oral mucosa in children: modern strategies for diagnosis, prevention and treatment.»				
<b>Practical lesson topic 15.</b> Modern ideas about the development of periodontal tissues in children: morphogenesis, risk factors, the role of the microbiome , genetic and immunological determinants in the occurrence of periodontal pathology. <b>Topic of Individual work 15.</b> Genetic, epigenetic and immunological risk factors for periodontal diseases in children : a review of current models and research.	16	-	4	12
<b>Lecture topic 9. Modern methods of diagnosing</b> periodontal tissue diseases in children: clinical, instrumental and digital approaches. <b>Practical lesson topic 16.</b> Diagnosis of gingivitis and periodontitis in children: modern clinical, instrumental, laboratory and digital methods. <b>Individual work topic 16.</b> Digital and instrumental diagnostics periodontal diseases in children : laser diagnostics, CBCT in complex cases, intraoral scanners and photo protocol .	22	2	4	16
<b>Lecture topic 10.</b> Comprehensive management of periodontal tissue diseases in children: modern therapeutic protocols, individualized prevention and control of relapses. <b>Practical lesson topic 17.</b> Modern management of periodontal tissue	22	2	5	15

diseases in children: mechanical therapy protocols, photodynamic technologies and methods for preventing relapses. <b>Topic of Individual work 17.</b> Photodynamic therapy and laser technologies in the treatment of gingivitis and periodontitis in children: effectiveness, indications, limitations.				
<b>Practical lesson topic 18.</b> Bacterial and viral lesions of the oral mucosa: etiological mechanisms, pathogenesis, clinical picture, diagnostics and management tactics. <b>Topic of Individual work 18.</b> Digital and instrumental diagnostics of oral mucosa lesions in children of viral origin.	21	-	5	16
<b>Practical lesson topic 19.</b> Diseases of the lips and tongue in children: etiology, clinical variants, diagnostic criteria and treatment. Allergic manifestations in the oral cavity of children: etiology, clinical forms, differential diagnosis and modern methods of treatment. <b>Topic of Individual work 19.</b> Immunopathogenesis of allergic reactions in the oral cavity: immediate and delayed type, the influence of food and drug allergens.	25	-	5	20
<b>Practical lesson topic 20.</b> Interdisciplinary approaches to the management of oral and maxillofacial diseases in children: algorithms for the interaction of a pediatric dentist with pediatricians, infectious disease specialists, dermatologists, allergists, gastroenterologists and other specialists. <b>Topic of Individual work 20.</b> Algorithm of communication and routing between a pediatric dentist and a pediatrician: infections, immune disorders, systemic manifestations.	14	-	3	11
<b>TOTAL HOURS</b>	360	20	80	260

## 11. THEMATIC PLAN OF LECTURES

No.	Name of topic	Amount of hours
1.	Modern aspects of the development and formation of the dentofacial system in childhood.	2
2.	Modern pediatric dentistry: patient and family-centered, minimally invasive and biobehavioral approaches.	2

3.	Current approaches to detecting caries in childhood: pathobiology of the process, early diagnosis, digital tools, and differentiation between carious and non-carious lesions.	2
4.	Prevention of dental diseases in children: levels of prevention, international risk assessment systems and minimally invasive preventive interventions.	2
5.	Pathobiology of complications of caries of primary teeth in children and modern biologically oriented methods of treatment of pulp and periapical tissues.	2
6.	Complicated forms of caries of permanent teeth in children: pathogenesis, biological treatment, preservation of pulp viability and regenerative technologies.	2
7.	Dental injuries in childhood: modern principles of diagnosis, treatment and prognosis according to international recommendations.	2
8.	Innovative biomaterials and technological solutions in the treatment of traumatic dental injuries in children.	2
9.	periodontal tissue diseases in children: clinical, instrumental and digital approaches.	2
10.	Comprehensive management of periodontal tissue diseases in children: modern therapeutic protocols, individualized prevention and control of relapses.	2
<b>TOGETHER</b>		<b>20</b>

## 12. THEMATIC PLAN OF PRACTICAL CLASSES

No.	Name of topic	Amount of hours
<b>Module 1. «Pediatric Dentistry»</b>		
<b>Content module 1.</b>		
« Modern principles of patient management in Pediatric Dentistry Clinic. Digital diagnostics, minimally invasive dental caries treatment strategies and evidence-based prevention methods.		
1.	Modern ideas about the anatomical and physiological development of the dentofacial system in children. Age-related aspects of tooth formation and mineralization: modern biological mechanisms, risks and clinical consequences.	3
2.	Modern models of organizing care for children in dentistry ( patient-centered care , family-centered care , minimally invasive dentistry, principles of biobehavioral interaction with patients).	3
3.	Dental caries in children: a modern concept of the microbiome , biofilm and behavioral risk factors.	4
4.	Clinical features of the course of dental caries in primary and permanent teeth: a modern pathogenetic analysis.	4
5.	Modern diagnostics of dental caries in children: digital technologies, early markers of damage, differential diagnostics.	3
6.	Integrative approach to differential diagnosis of dental caries in childhood.	3
7.	Evidence-based protocols for primary, secondary and tertiary prevention of dental diseases in children (CAMBRA, ICCMS, Atraumatic Restorative Treatment , Silver Diamine Fluoride ).	4
8.	Strategies for treating dental caries in children using minimally invasive technologies: ART, fissure sealants , resins infiltration , selective caries removal , stepwise excavation .	4
<b>Content module 2.</b>		
«Comprehensive management of non-carious lesions, complicated forms of caries and dental trauma in children: evidence-based approaches and innovative treatment methods.»		



9.	Non-carious lesions of hard dental tissues in children: structural and genetic defects of enamel and dentin, MIH, metabolic disorders, erosive lesions, abfractions , hypoplasias, fluorosis . Modern methods of diagnosis, risk stratification and clinical management.	5
10.	Biological, microbiological and immunological aspects of complications of caries of primary teeth in children. Modern strategies for the treatment of pulpitis and periodontitis based on the principles of biologically oriented therapy (« vital pulp therapy »).	4
11.	Complicated caries of permanent teeth in children: modern approaches to biological treatment, « vital pulp therapy » and regenerative endodontics .	4
12.	Management of children with special needs, comorbid somatic, neurological and immune disorders. Behavioral strategies, pharmacological behavior modification and sedation under general anesthesia.	4
13.	Modern protocols for the treatment of traumatic dental injuries in children according to the «IADT Guidelines «: algorithms for early diagnosis, risk stratification and clinical management.	5
14.	Biomaterials and innovative technologies in pediatric dental traumatology: modern splints, bioactive cements, adhesive and minimally invasive restoration techniques.	4
<b>Content module 3.</b> «Diseases of periodontal tissues and oral mucosa in children: modern strategies for diagnosis, prevention and treatment.»		
15.	Modern ideas about the development of periodontal tissues in children: morphogenesis, risk factors, the role of the microbiome , genetic and immunological determinants in the occurrence of periodontal pathology.	4
16.	Diagnosis of gingivitis and periodontitis in children: modern clinical, instrumental, laboratory and digital methods.	4
17.	Modern management of periodontal tissue diseases in children: mechanical therapy protocols, photodynamic technologies and methods for preventing relapses.	5
18.	Bacterial and viral lesions of the oral mucosa: etiological mechanisms, pathogenesis, clinical picture, diagnosis and management tactics.	5
19.	Lip and tongue diseases in children: etiology, clinical variants, diagnostic criteria and treatment. Allergic manifestations in the oral cavity of children: etiology, clinical forms, differential diagnosis and modern methods of treatment.	5
20.	Interdisciplinary approaches to the management of ENT diseases in children: algorithms for interaction between a pediatric dentist and pediatricians, infectious disease specialists, dermatologists, allergists, gastroenterologists, and other specialists.	3
<b>TOTAL</b>		<b>80</b>

### 13. THEMATIC PLAN OF INDIVIDUAL WORK

No.	Name of topic	Amount of hours
1.	Analysis of molecular mechanisms of amelogenesis and dentinogenesis : genetic regulators, cellular processes, critical periods of development. The role of digital methods in assessing the development of the dentofacial system (CBCT, digital models).	11

2.	Biobehavioral protocols for interaction with patients of different age groups: modern approaches, VR technologies, cognitive -behavioral strategies.	11
3.	biofilm formation and stability ; principles of its modulation in clinical practice.	10
4.	Analysis of biological and behavioral triggers of rapidly progressive dental caries in children (« early childhood «caries », « rapid caries progression »).	10
5.	Models for predicting the course of dental caries: interpretation, risks, clinical significance.	11
6.	Biomechanical, structural, and biochemical differences between carious and non-carious lesions: a review of evidence-based protocols.	11
7.	Comparative analysis of preventive and minimally invasive strategies in pediatric dentistry:	10
8.	Selective removal of carious tissues and stepwise excavation : biological rationale and clinical protocols.	10
9.	Genetic and epigenetic mechanisms of the formation of structural defects in enamel and dentin ( amelogenesis) imperfecta , dentinogenesis imperfecta ): modern diagnostic biomarkers and clinical approaches.	15
10.	Bioactive materials for pulp treatment of primary teeth: MTA, Biodentine, Bioceramics – evidence base and comparative characteristics.	14
11.	Regenerative endodontics in children: Revitalization , REPs , scaffold-based concepts therapy ; clinical results and limits of application .	14
12.	Sedation and treatment under general anesthesia in children with high behavioral risks: modern AAPD/ASA protocols, medical risk assessment (ASA Classification ), post-anesthesia safety, and an algorithm for interdisciplinary clinical decision-making.	15
13.	Modern splints for stabilizing injured teeth: materials, indications, biomechanics, and duration of use.	14
14.	Bioactive materials in the reconstruction of injured teeth: MTA, Biodentine, glass ionomers , composites with remineralizing potential.	14
15.	Genetic, epigenetic, and immunological risk factors for periodontal diseases in children : a review of current models and research.	12
16.	Digital and instrumental diagnostics periodontitis in children : laser diagnostics, CBCT in complex cases, intraoral scanners and photo protocol .	16
17.	Photodynamic therapy and laser technologies in the treatment of gingivitis and periodontitis in children: effectiveness, indications, limitations.	15
18.	Digital and instrumental diagnostics of oral mucosa lesions in children of viral origin.	16
19.	Immunopathogenesis of allergic reactions in the oral cavity: immediate and delayed type, the influence of food and drug allergens.	20
20.	Communication and routing algorithm between a pediatric dentist and a pediatrician: infections, immune disorders, systemic manifestations.	11
<b>TOTAL</b>		<b>260</b>

#### 14. LIST OF INDIVIDUAL TASKS

Not provided

#### 15. TASKS FOR INDEPENDENT WORK

They are determined by the teacher individually for each applicant according to the topic and purpose of his scientific research.

## **16. METHODS AND FORMS OF CONTROL**

### **16.1. Form, procedure, methodology and criteria for assessing current learning activities.**

*Current control* includes oral questioning, analysis of clinical cases, performance of practical tasks, and work in a clinic under the guidance of a scientific supervisor.

Current control methods:

- *traditional survey* - the teacher asks questions to applicants orally, which allows assessing the level of knowledge and communication skills;

- *«chain survey» method* - one applicant answers, the next one supplements.

*Criteria for assessing the current control of knowledge and skills of applicants during the study of the module*

10 points ( *excellent* ) The applicant demonstrates deep, systematic knowledge, full mastery of the material, modern research methods and scientific approaches. He/She answers confidently, with good arguments, demonstrates a high level of competence and independence, is able to apply knowledge in new conditions, and has his/her own scientific ideas.

8 points ( *good* ). The candidate has sufficient knowledge to understand and apply the material, although minor inaccuracies are possible. Practical skills are at an average level, answers are generally correct, but not always complete, independence in practical situations is limited.

6 points ( *satisfactory* ). Knowledge is fragmentary, with significant gaps in theory or methods. Practical tasks are performed with prompts, the applicant demonstrates superficial understanding, requires constant monitoring and correction.

0 points ( *unsatisfactory* ). Knowledge is insufficient, the applicant does not possess basic concepts and skills. Practical tasks are performed incorrectly or not performed at all. There is no minimum level of competence, re-study of the material and additional control are required.

*Control of Individual work.* Individual work involves the performance of various types of tasks aimed at the PHD student obtaining new knowledge, its systematization and generalization; the formation of practical skills and abilities; control of the PHD student's readiness for practical classes and control measures.

### **16.2. Form, procedure, methodology and criteria for assessing individual independent work.**

The program does not provide

### **16.3. Conditions for admission to the final assessment.**

The final test (assessment) is carried out upon completion of the study of all module topics in the last lesson of the module.

Applicants who have completed all types of work provided for by the curriculum and scored at least the minimum number of points - 120 points - are eligible for the credit.

### **16.4. Form, procedure, methodology and evaluation criteria during the final control.**

At the last thematic training session in the discipline, after the end of the analysis of the topic of the session, the teacher of the study group announces the amount of points that the applicant scored based on the results of the current control.

The results of the test are evaluated on a two-point scale: «passed», «not passed».

The applicant receives a grade of «*passed*» if he has completed all types of work provided for by the working curriculum for the discipline, attended all classes (lectures, practicals) specified in the thematic plan for the discipline (if there are any absences, he has worked them out in a timely manner), and scored a total number of points in studying the discipline of at least 120.

a grade of «*failed*» if he or she has missed any classes (seminars and lectures) and the number of points for the current test is less than the minimum.

## **17. LIST OF TASKS TO THE FINAL CONTROL**

Not provided

## **18. POINT CALCULATION AND DISTRIBUTION SCHEME**

For current evaluation, the following system of converting the traditional evaluation system into points is used:

Module number, number of teaching hours/number of ECTS credits	Number of content modules, their numbers	Number of practical classes	Conversion into point of the traditional scale					Minimum number of scores
			Traditional scale				Scores for individual task	
			«5»	«4»	«3»	«2»		
Module 1 360/12	No. 1-3	20	10	8	6	0	0	120

The maximum number of points that a candidate can score when studying a module is 200 points.

It is calculated by multiplying the number of points corresponding to a grade of «5» by the number of topics in the module:

$$20 \times 10 = 200$$

The minimum number of points that a candidate can score when studying a module is calculated by multiplying the number of points corresponding to a grade of «3» by the number of topics in the module:

$$20 \times 6 = 120$$

The results of the tests are evaluated on a two-point scale: «passed», «not passed».

The applicant receives a grade of «passed» if he/she has completed all types of work provided for by the working curriculum for the discipline, attended all classes specified in the thematic plan for the relevant discipline (if there are any absences, he/she has completed them in a timely manner), and scored a total number of points in studying the discipline of at least 120.

Applicants studying at the same faculty, course, or specialty are ranked on *the ECTS scale* as follows, based on the number of points earned in the discipline:

<b>ECTS score</b>	<b>Statistical indicator</b>
«A»	Top 10% of applicants
«B»	Next 25% of applicants
«C»	Next 30% of applicants
«D»	Next 25% of applicants
«E»	Last 10% of applicants

Ranking with the assignment of grades «A», «B», «C», «D», «E» is carried out by the Department of Doctoral and Postgraduate Studies for applicants who are studying in one specialty and have successfully completed the study of the discipline.

The grade «FX» is assigned to applicants who have scored the minimum number of points for the current academic activity, but who have not received the grade «passed». This category of applicants has the right to retake the test.

An «F» grade is given to applicants who have attended all classroom classes in the discipline but have not scored the minimum number of points for the current academic activity. This category of applicants has the right to retake the discipline.

## 19. RECOMMENDED LITERATURE

### 19.1. Basic (basic)\* literature:

1. Khomenko L.O., Chaykovsky Yu.B., Smolyar N.I., Savychuk O.V., Ostapko O.I., Bidenko N.V., et al. Therapeutic dentistry of children. Dental caries and its complications: Textbook for students of VMNZ of III-IV levels of accreditation of dental faculties, interns and dentists. T.1. Kyiv: Kniga-plus; 2016. 432 p.
2. Godovanets O.I., Kitsak T.S., Kotelban A.V., Mytchenok M.P., Goncharenko V.A. Algorithms for performing dental manipulations in the discipline «Children's Therapeutic Dentistry». Teaching and Methodological Manual. Chernivtsi: BSMU; 2018. 112 p.
3. Kuznyak N.B., Godovanets O.I., Mandziuk T.B. Caries and non-carious lesions of hard dental tissues in children. Chernivtsi: BSMU; 2017. 152 p.
4. Godovanets O.I., Kitsak T.S., Vitkovsky O.O., Pavlov Y.O. Pulpitis in children: etiology, clinical features, diagnostics and treatment. Chernivtsi: BSMU; 2018. 120 p.
5. Evidence-based clinical guideline “Caries of deciduous teeth” (Ministry of Health of Ukraine). [https://www.dec.gov.ua/wp-content/uploads/2024/04/2023\\_kn-kariyes-tymchasovyh-zubiv.pdf](https://www.dec.gov.ua/wp-content/uploads/2024/04/2023_kn-kariyes-tymchasovyh-zubiv.pdf)
6. Standard of medical care «Dental caries» [https://www.dec.gov.ua/wp-content/uploads/2024/05/smd\\_869\\_23052024.pdf](https://www.dec.gov.ua/wp-content/uploads/2024/05/smd_869_23052024.pdf)
7. Evidence-based clinical guideline “Pulp therapy of primary and permanent immature teeth” [https://www.dec.gov.ua/wp-content/uploads/2025/03/2024\\_05\\_10\\_kn\\_pulpity.pdf](https://www.dec.gov.ua/wp-content/uploads/2025/03/2024_05_10_kn_pulpity.pdf)
8. Medical care standard «Pulp therapy of permanent unformed teeth» <https://www.dec.gov.ua/wp-content/uploads/2025/03/smd-terapiya-pulpy-post-nesform-zubiv-z-datoyu.pdf>
9. Evidence-based clinical guideline “Maxillofacial injuries” [https://www.dec.gov.ua/wp-content/uploads/2023/02/2023\\_kn\\_travma.pdf](https://www.dec.gov.ua/wp-content/uploads/2023/02/2023_kn_travma.pdf)
10. Medical care standards «Dentoalveolar trauma» [https://www.dec.gov.ua/wp-content/uploads/2023/02/stnd\\_314\\_17022023.pdf](https://www.dec.gov.ua/wp-content/uploads/2023/02/stnd_314_17022023.pdf)
11. Medical care standard «Anesthesia support in outpatient dentistry» [https://www.dec.gov.ua/wp-content/uploads/2025/03/dn\\_555\\_27032025\\_dod.pdf](https://www.dec.gov.ua/wp-content/uploads/2025/03/dn_555_27032025_dod.pdf)
12. Evidence-based clinical guideline “Anesthesia support in outpatient dentistry” [https://www.dec.gov.ua/wp-content/uploads/2025/03/2025\\_01\\_29\\_kn\\_anest\\_v-stomat.pdf](https://www.dec.gov.ua/wp-content/uploads/2025/03/2025_01_29_kn_anest_v-stomat.pdf)

### 19.2 Auxillary literature:

1. On the creation and implementation of medical and technological documents for the standardization of medical and rehabilitation care in the system of the Ministry of Health of Ukraine. Order of the Ministry of Health of Ukraine dated 28.09.2012 No. 751. Registered with the Ministry of Justice of Ukraine on November 29, 2012 under No. 2001/22313.
2. American Academy of Pediatric Dentistry (AAPD). Fluoride therapy. The Reference Manual of Pediatric Dentistry. Chicago (IL): American Academy of Pediatric Dentistry ; 2023. p. 352-358.
3. American Academy of Pediatric Dentistry . Policy on Early Childhood Caries (ECC): Consequences and Preventive Strategies . The Reference Manual of Pediatric Dentistry . Chicago , III: American Academy of Pediatric Dentistry ; 2025-2026.
4. American Academy of Pediatric Dentistry . Caries-risk Assessment and Management for Infants , Children , and Adolescents . Pediatrics Dent . 2017 ; 39(6) :197–204.
5. FDI Policy statement . Early Childhood Caries . Adopted by the FDI General Assembly : September 7-9, 2024, Istanbul , Turkey .
6. Featherstone JDB, Alston P, Chaffee BW, Rechmann P. Caries management by risk assessment (CAMBRA): an update for use in clinical practice for Patients Aged 6 Through Adult . J Calif Dent Assoc . 2019;47(1):25–34. doi : [10.1080/19424396.2019.12220743](https://doi.org/10.1080/19424396.2019.12220743)

7. Featherstone JDB, Crystal YO, Alston P, Chaffee BW, Doméjean S, Rechmann P, et al . Evidence-Based Caries Management for All Ages-Practical Guidelines . Front Oral Health . 2021;2:657518. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8757692/pdf/froh-02-657518.pdf> doi : [10.3389/froh.2021.657518](https://doi.org/10.3389/froh.2021.657518)
8. Featherstone JDB, Crystal YO, Alston P, Chaffee BW, Domejean S, Rechmann P, et al. A Comparison of Four Caries Risk Assessment Methods . Front Oral Health . 2021 ; 2:656558 . Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8757708/pdf/froh-02-656558.pdf> doi : [10.3389/froh.2021.656558](https://doi.org/10.3389/froh.2021.656558)
9. Fuks AB. Peretz B. Pediatric Endodontics . Springer ; 2016. 171 p.
10. Lamloum D, Arghittu A, Ferrara P, Castiglia P, Dettori M, Gaeta M, et al . A Systematic Review of Clinical Practice Guidelines for Caries Prevention following the AGREE II Checklist . Healthcare . 2023;11(13):1895. doi : [10.3390/healthcare11131895](https://doi.org/10.3390/healthcare11131895)
11. Maguire A. ADA clinical recommendations on topical fluoride for caries prevention. Evid Based Dent. 2014 ;15 (2):38-9. doi : [10.1038/sj.ebd.6401019](https://doi.org/10.1038/sj.ebd.6401019)
12. Petersen PE, Ogawa H. Prevention of dental caries through the use of fluoride – the WHO approach. Community Dent Health. 2016 ;33 (2):66-8.
13. Reference Manual of Pediatric Dentistry . American Academy of Pediatric Dentistry ; 2024. <https://www.aapd.org/research/oral-health-policies--recommendations/>
14. Sicca C, Bobbio E, Quartuccio N, Nicolò G, Cistaro A. Prevention of dental caries : A review of effective treatments . J Clin Exp Dent . 2016;8(5):604-10. doi : [10.4317/jced.52890](https://doi.org/10.4317/jced.52890)
15. Soxman I, Jane A. The handbook of clinical techniques in pediatric dentistry . Chennai : Wiley ; 2015. 188 p.
16. Veenman F, van Dijk A, Arredondo A, Medina-Gomez C, Wolvius E, Rivadeneira F et al . Oral microbiota of adolescents with dental caries : A systematic review . Arch Oral Biol . 2024;161:105933. Available from: <https://www.sciencedirect.com/science/article/pii/S0003996924000542?via%3Dihub> doi : [10.1016/j.archoralbio.2024.105933](https://doi.org/10.1016/j.archoralbio.2024.105933)
17. Veneri F, Vinceti SR, Filippini T. Fluoride and caries prevention : a scoping review of public health policies . Ann Ig . 2024 May-Jun;36(3):270-280. doi : 10.7416/ai.2024.2593. Epub 2024 Jan 17. PMID: 38236001.

### 19.3 Information resources

1. Website of the Department of Pediatric Dentistry <https://sites.google.com/bsmu.edu.ua/childrens-dentistry-department>
2. Website of the Department of Doctoral and Postgraduate Studies <https://dako.bsmu.edu.ua/>
3. Scopus database <https://www.scopus.com/home.uri?zone=header&origin=>
4. Web database of Science <https://access.clarivate.com/login?app=wos&alternative=true&shibShireURL=https:%2F%2Fwww.webofknowledge.com%2F%3Fauth%3DShibboleth&shibReturnURL=https:%2F%2Fwww.webofknowledge.com%2F&roaming=true>
5. American Academy of Pediatric Dentistry (AAPD) <https://www.aapd.org/>
6. European Academy of Pediatric Dentistry (EAPD) <https://www.eapd.eu/>
7. International Association of Pediatric Dentistry (IAPD) <https://iapdworld.org/>
8. Ukrainian Dental Association <https://www.udenta.org.ua/>

### 20. SYLLABUS COMPILERS

1. GODOVANETS Oksana – Doctor of Medical Sciences, Professor, Professor of the Department of Pediatric Dentistry of a Higher Educational Institution.

2. KOTELBAN Anastasiia – PhD, Associate Professor, Associate Professor of the Department of Pediatric Dentistry of a Higher Educational Institution.