

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES
AT VILNIUS UNIVERSITY**

Scientific Area, Field of Science	Odontology (M 002)			
Faculty, Institute, Department/Clinic	Faculty of Medicine, Institute of Odontology			
Course unit title (ECTS credits, hours)	Children's Dental Diseases and Prevention (7 credits, 186 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits 7 (186 hours)			0,5 of credit (13 hours)	6,5 credits (173 hours)
Method of the assessment (in 10 point system)	Presentation evaluation. Presentation topic should be discussed and decided with the lecturer coordinating the unit. Student should review, analyze, and present the newest research findings that are related to the topic. The following aspects are evaluated: - Structure of the presentation, comprehensiveness, and quality of the material (2 points); - Clear presentation of knowledge, argumentation, critical thinking (2 points); - Conclusions and limitations (2 points); - Clinical recommendations, evidence-based statements (2 points); - Discussion, ability to answer questions (2 points). Minimal passing score – 5.			
PURPOSE OF THE COURSE UNIT				
To introduce doctoral students with the etiopathogenesis, epidemiology, treatment, and prevention of children's oral diseases, the methodology of children's oral health programs, to provide knowledge that the doctoral student, linked to the knowledge of other subjects, could use it in his scientific work.				
THE MAIN TOPICS OF THE COURSE UNIT				
Epidemiology of dental caries, periodontal diseases, dental traumatic injuries, non-carious dental lesions in children. Risk factors and assessment of dental caries and periodontal diseases in children. Importance of nutrition in the etiopathogenesis of oral diseases in children. The importance of oral hygiene in the etiopathogenesis of oral diseases in children. Methods to prevent dental caries in children. Sealants. Methods to prevent periodontal diseases in children. Periodontal diseases as an expression of systemic diseases. Oral mucous lesions in children. Socio-economic determinants of dental diseases development in childhood. The role of fluorides in the prevention of caries in children. Fluoride metabolism. Fluoride toxicity and effects on child health. The role of fluorides in tooth and bone mineralization. Dental fluorosis. Fluorides in oral fluids and dental plaque. Effect of fluorides on oral microflora. Systemic and local effects of fluorides. Water fluoridation. A child's psychological and emotional development and its influence on behavior during dental treatment. Factors determining a child's behavior during dental treatment. Fear of dental treatment in children. Non-pharmacological methods of controlling children's behavior. Sedation and general anesthesia in pediatric dentistry.				

Oral diseases and prevention for children with internal diseases. Oral diseases and prevention for children with mental disabilities. Oral diseases and prevention for children with physical disabilities.

Acute conditions in pediatric dentistry. Emergency care in pediatric dentistry.

Antimicrobial and anti-inflammatory therapy in pediatric dentistry.

Local anesthesia in pediatric dentistry.

Etiopathogenesis, epidemiology, prevention and treatment of primary teeth trauma. Etiopathogenesis, epidemiology, prevention and treatment of developing permanent teeth trauma.

Teeth development and eruption. Morphology of deciduous and permanent teeth.

Anomalies of teeth development and eruption. Genetic syndromes and their expression in the mouth. Non-carious dental lesions in children. Teeth erosion in children. Types of dental fillings and possibilities of use in pediatric dentistry.

Treatment of tooth decay in children. Early tooth decay. Pulp therapy in children.

Treatment of periodontal diseases in children. Bad habits leading to oral diseases in children.

Features of dental prosthetics in children. Standard stainless steel crowns to restore the primary teeth.

RECOMMENDED LITERATURE SOURCES

1. M. Alrashdi, J. Ardoin, J. A. Liu. Zirconia crowns for children: A systematic review. *Int J Paediatr Dent.* 2022;32:66–81
2. N. Tewari, S. Goel, V.P. Mathur, A.C. O'Connell, R.M. Johnson, M. Rahul, F. Sultan, M. Goswami, S. Srivastav, P. Ritwik. Success of medicaments and techniques for pulpotomy of primary teeth: An overview of systematic reviews *Int J Paediatr Dent.* 2022;00:1–15.
3. S.E. Uribe, N. Innes, I. Maldupa The global prevalence of early childhood caries: A systematic review with meta-analysis using the WHO diagnostic criteria *Int J Paediatr Dent.* 2021;31:817–830
4. Day PF et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 3. Injuries in the primary dentition. *Dental Traumatology*; 2020;36:343–359
5. R. Welbury, M.S. Duggal, M.T. Hosey *Paediatric dentistry*, 5th ed.; p:1-198 Oxford University Press. 2018
6. A.J. Nowak, J. Christensen, T. Mabry, J. Townsend, M. Wells, . *Pediatric Dentistry. Infancy through adolescence.* Elsevier Saunders. 2018.
7. L.A. Chisini, K. Collares, M. Gonzalez Cademartori, L. J. Corrêa de Oliveira, M. C. Muniz Conde, F.F. Demarco, M. B. Corrêa. Restorations in primary teeth: a systematic review on survival and reasons for failures. *International Journal of Paediatric Dentistry* 2018; 28:123-139
8. E. Aïem, C. Joseph, A. Garcia, V. Smaïl-Faugeron, M. Muller-Bolla. Caries removal strategies for deep carious lesions in primary teeth: Systematic review. *Int J Paediatr Dent.* 2020;30:392–404

CONSULTING LECTURERS

1. [Coordinating lecturer: Vilma Brukienė \(professor, PhD\)](#)
2. [Vytautė Pečiulienė \(professor, PhD\)](#)
3. [Alina Pūrienė \(professor, PhD., HP\)](#)
4. [Lina Džiaugytė - Eyeberdiyev \(professor assistant, PhD\)](#)
5. [Kerstin Galler \(prof., PhD.\)](#)

APPROVED:
By Council of Doctoral School of Medicine and Health Sciences at Vilnius University: 15 th of October 2024
Chairperson of the Board: Prof. Janina Tutkuvienė