



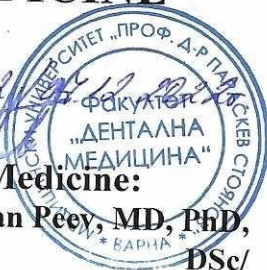
MEDICAL UNIVERSITY
“PROF. DR. PARASKEV STOYANOV” - VARNA
FACULTY OF DENTAL MEDICINE

Approved with a Protocol of № 62

Approved:

DEAN of Faculty of Dental Medicine:

/ Prof. Stefan Peev, MD, PhD,
DSc/



EDUCATIONAL PROGRAMME
OF
„CLINICS OF PEDIATRIC DENTISTRY“

Specialty “DENTAL MEDICINE”

Educational-qualification degree “MASTER”

Professional qualification “ PHYSICIAN IN DENTAL MEDICINE

Types of lessons	Semester	Curriculum – hours weekly	Curriculum – hours overall
Lectures	VI, VII,VIII,IX, X	1/1/1/1/0	60
Practical exercises	VI,VII,VIII, IX,X	2/2/2/2/4	180
Hours overall			240
Control examinations	Current control		Exam X-th semester
Credits (ECTS)	1+2+3+2+5 (13)		13
Extracurricular employment			150

Teachers: prof. dr. Radosveta Andreeva, MD, PhD, DSc.

assoc. prof. dr. Milena Georgieva – Dimitrova, MD, PhD

assoc. prof. dr. Dobrinka Damyanova, MD, PhD

Varna, 2022

Annotation of the course:

The course in "Clinics of Pediatric Dentistry" aims to prepare the graduate student in polyvalent treatment of children. Provides an opportunity to acquire knowledge and competences regarding:

1. The clinic, diagnosis and treatment of caries of temporary teeth and early childhood caries.
2. Clinic, diagnosis and treatment of caries of permanent children's teeth.
3. Clinic, diagnosis and treatment of pulpitis and periodontitis in temporary and permanent children's teeth.
4. Peculiarities in the clinic, diagnosis and treatment of pulpitis and periodontitis in permanent children's teeth with incomplete root development.
5. Dental examination of a child.
6. Psychological problems and methods of non-pharmacological and pharmacological influencing of behavior during dental treatment of children.
7. Clinic, diagnosis, treatment and prevention of dental dysplasia
8. Clinic, diagnosis and treatment of trauma to temporary and permanent children's teeth
9. Epidemiology, etiology, pathogenesis, clinic, diagnosis and treatment of gingivitis and periodontitis in childhood.
10. Etiology, pathogenesis, diagnosis and treatment of diseases of the oral mucosa in childhood.
11. Etiology, pathogenesis, clinic, diagnosis and treatment of cheilitis and glossitis in childhood.
12. Dental treatment of children with physical and mental problems and severe general illnesses.

PROGRAM OBJECTIVES:

- To acquire basic knowledge and skills regarding the diagnosis and treatment of caries of temporary and permanent children's teeth
- To acquire basic knowledge and skills regarding the diagnosis and treatment of pulpitis and periodontitis of permanent children's teeth
- To acquire basic knowledge and skills regarding the diagnosis and treatment of gingival and periodontal stains in childhood

- To acquire basic knowledge and skills regarding the diagnosis and treatment of mucosal staining in childhood
- To gain basic knowledge about the dental treatment of children with physical and mental problems and severe general diseases.
- To gain knowledge about the complex approach to the child, as an object of dental prevention and treatment.

OBJECTIVE OF THE CURRICULUM:

The aim of the program has the following guidelines: - Students should be able to:

- diagnose and treat of early childhood caries, caries of temporary teeth and caries of permanent teeth.
- diagnose and treat pulpitis and periodontitis of temporary and permanent children's teeth.
- diagnose and treat gingival and periodontal diseases in childhood
- diagnose and treat periodontopathies with early onset
- diagnose and treat the most common diseases of the mucous membrane in childhood.
- have knowledge of the diagnosis and treatment of rare diseases of the mucous membrane in childhood
- have knowledge of the treatment of children with physical and mental illnesses and severe general illnesses
- have knowledge about the complex approach to the child, as an object of dental prophylaxis and treatment.

PREREQUISITES:

In order to start training in the "Clinics of Pediatric Dentistry", it is necessary for students to have basic knowledge of:

- histogenesis, morphology and physiology of oral structures
- methods and means for the prevention of dental diseases

Tuition program:

Name of discipline: "Clinics of pediatric dentistry"

Education degree: Master

Discipline: Obligatory

Duration of the course: from 6th to 10th semester

Level of the course: Master Level M

Forms of marks: Current marks, examination in written form at the time of the practical classes, tests, practical exam and theoretical exam.

Forms and methods of education: Lectures, discussions, solving different clinical cases, examining a child with dental health problems, treatment of dental diseases in children of different age groups.

The course of education ends with an exam at the end of the 10th semester.

TEACHING AIDS:

- Slides, tests, case studies for interpretations, educational films

ASSESSMENT FORMS:

Current assessments, quizzes, tests, practical exam and theory exam

Forming the assessment - complex

Average current assessment, tests, colloquiums, practical exam and theory exam

Aspects in forming the assessment:

- participation in discussions
- solving cases
- discussion of clinical cases
- a test
- exam result- practical and theoretical exam

EXPECTED RESULTS:

After completing the course, students should know, be able to interpret and apply the basic methods and tools for:

- the diagnosis and treatment of caries of temporary and permanent children's teeth

- the diagnosis and treatment of pulpitis and periodontitis of temporary and permanent children's teeth
- the diagnosis and treatment of gingival and periodontal diseases in childhood
- the diagnosis and treatment of diseases of the mucous membrane in childhood
- the dental treatment of children with physical and mental problems and severe general illnesses
- a complex approach to the child, as an object of dental prophylaxis and treatment

DISCRIPTION OF THE COURSE:

The course consists of 240 academic hours

- Lectures – 60h
- Practical exercises – 180h

Lecture program

VI semester – 15 academic hours	
1. Characteristics of the clinics and diagnostics of caries of temporary teeth	2 h
2. Characteristics of the treatment of temporary teeth. Filling materials in pediatric dentistry for temporary and permanent dentition. Preformed metal crowns.	2 h
3. Early childhood caries - risk factors, features of the clinics and treatment	2 h
4. Characteristics of the clinics, diagnostics and treatment of caries of permanent teeth	2 h
5. Characteristics of the clinics, diagnostics and treatment of pulpitis of temporary teeth	2 h
6. Characteristics of the clinics, diagnostics and treatment of periodontitis of temporary teeth	2 h
7. Characteristics of the clinics and diagnostics of pulpitis of permanent	2 h

children's teeth with incomplete root development. Biological treatment.	
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VII semester – 15 academic hours	
1. Methods for biological treatment of permanent children's teeth – indirect and direct pulp capping. Calcium hydroxide agents – types, mechanism of their effect	2 h
2. Biological methods of treatment of pulpitis of children's permanent teeth in childhood age- vital pulpotomy, partial pulpotomy	2 h
3. Characteristics of the clinics, diagnostics and treatment of periodontitis in permanent children's teeth with incomplete root development	2 h
4. Dental examination of a child	2 h
5. Psychological problems during dental treatment in childhood	2 h
6. Methods of non-pharmacological influence on the behavior of children during dental treatment	2 h
7. Methods of pharmacologically management of children's behavior during dental treatment. Treatment under general anesthesia. Indications for extractions of temporary/permanent teeth in childhood. Anesthesia in childhood - types of local anesthesia and anesthetics.	2 h

VIII semester – 15 academic hours	
1. Dental dysplasias - clinics, treatment, prevention	2 h
2. Traumatic injuries in temporary teeth - clinics, diagnostics and treatment. Anesthesia in childhood.	2 h
3. Traumatic injuries in permanent teeth - clinics, diagnostics, treatment	2 h

4. Epidemiology, etiology, pathogenesis and classification of periodontal diseases in childhood. Gingival and periodontal indices in childhood.	2 h
5. Plaque-induced and plaque-associated gingivitis in childhood. Ulcer-necrotic gingivitis in children and adolescents - clinic, diagnosis and treatment.	2 h
6. Non-plaque associated gingivitis in childhood.	2 h
7. Periodontitis with early onset - characteristics in etiology, clinics, diagnostics and treatment	2 h

IX semester – 15 academic hours	
1. Periodontitis in systemic diseases and syndromes in children and adolescents	2 h
2. Etiology, pathogenesis and classification of diseases of the oral mucosa in childhood	2 h
3. Vesiculo-erosive stomatitis in childhood. Herpes infections in childhood. Acute herpetic gingivostomatitis	2 h
4. Recurrent aphtae and aphthosis in childhood	2 h
5. Oral candidiasis in childhood	2 h
6. Symptomatic stomatitis in children - in infectious, blood and gastrointestinal diseases	2 h
7. Symptomatic stomatitis in children - with hypovitaminosis, skin diseases and syndromes. cheilitis and glossitis in childhood	2 h

CURRICULUM FOR THE EXERCISES ON CPEDD - PHANTOM COURSE
3 COURSE – VI SEMESTER

Theoretical topic and practical work	Hours
1. Introduction. Introduction to working in a phantom room. Review. Anatomical and physiological features of temporary and permanent teeth.	2 h
2. Theoretical topic: Caries of temporary teeth. Features in the clinic and treatment. Amalgam cavities and aesthetic filling materials. Practical task: Class I cavity for amalgam - one cavity with fissure extension of a lower second temporary molar.	2 h
3. Theoretical topic: Caries of temporary teeth. Features in the clinic and treatment. Amalgam cavities and aesthetic filling materials. Practical task: Two separate cavities with preservation of the crista of an upper second temporary molar.	2 h
4. Theoretical topic: Caries of temporary teeth. Class II amalgam cavities. Types of retentions. Practical task: Making a class II cavity. L-shaped retention of a second upper temporary molar.	2 h
5. Theoretical topic: Caries of temporary teeth. Class II amalgam cavities. Types of retentions. Practical task: Making a class II cavity. T-shaped retention of a second upper temporary molar.	2 h
6. Theoretical topic: Caries of temporary teeth. Class II amalgam cavities. Types of retentions. Practical task: Making a class II cavity with extension along the fissures of a lower temporary molar.	2 h
7. Theoretical topic: Caries of temporary teeth. Class III and V amalgam cavities. Practical task: Making a class 5 cavity.	2 h
8. Theoretical topic: Materials for obturation in caries of temporary teeth. Practical task: Obturation of one cavity with compomer and one with GIC.	2 h
9. Theoretical topic: Caries of early childhood. ART technique. Preformed crowns. Practical task: Preparation of the primary molar for preformed crown.	2 h
10. Theoretical topic: Caries of permanent teeth. Preventive obturation of permanent teeth. Modern filling materials for the treatment of caries and its complications in temporary and permanent children's teeth. Modern adhesive systems. Practical task: Placing a preventive obturation on a first permanent molar.	2 h
11. Theoretical topic: Colloquium on "Anatomical, morphological and physiological features of temporary and permanent children's teeth. Differences in temporary and permanent dentition."	2 h
12. Theoretical topic: Pulpitis of temporary teeth. Biological methods. Pharmacodynamics of used medications and pulp covering agents. Other drugs used in the therapy of temporary teeth. Practical task: Biological treatment of an extracted tooth (vital pulpotomy on an extracted temporary tooth)	2 h
13. Theoretical topic: Pulpitis of temporary teeth. Mortal methods. Pharmacodynamics of the medications used.	2 h

Practical task: Mortal method of treatment on an extracted/plastic tooth.	
14. Theoretical topic: Periodontitis of temporary teeth.	
Practical task: Performing the method on an extracted/plastic tooth.	2 h
15. PRACTICAL EXAM	2 h

4th Year English Language Students

VII term

PRACTICAL CLASSES

form of classes – clinical practice – 90 minutes

duration– 90 minutes every week (2 academic hours of 45 minutes)

number– 15 classes (totally 30 academic hours)

Exercise 1: Becoming acquainted with clinical practice with children in a clinical hall. Declaration of requirements concerning forthcoming clinical practice.

Exercise 2: Examination in a writing form on the topic: “Diagnosis, clinics and treatment of caries, pulpitis and periodontitis of primary children’s teeth.”

Exercise 3 to 15: Clinical practice:

During the VII semester, students have to accomplish this clinical practice

- 5 caries – 2 with GIC and 1 with polymer/compomer on temporary teeth, 2 with polymer on permanent children's teeth
- 1 endodontic treatment of a temporary tooth
- 1 child with a detailed history and status recorded, complete rehabilitation and development of an individual preventive program and evaluation of its effect

SEMINARS :

1. Early childhood caries - risk factors, features of the clinic and treatment. Preventive measures..
2. Features of the clinic, diagnosis and treatment of caries of permanent teeth.
3. Biological methods of treatment of permanent children's teeth with incomplete root development (indirect and direct pulp capping) - indications, methods, means.

4th Year English Language Students

VIII term PRACTICAL CLASSES

a form of classes – practical work

duration – 90 min. (2 academic hours of 45 minutes each week)

number – 15 exercises (totally 30 academic hours)

1-st exercise: Preparation for clinical practice.

2-nd exercise: Discussion of the topic: “Diagnosis, clinics and treatment of caries, pulpitis and periodontitis of immature permanent teeth”.

3-rd exercise: Examination in written form on the topic: “Diagnosis, clinics and treatment of caries, pulpitis and periodontitis of immature permanent teeth”.

4-th to 15-th exercise: Clinical practice.

During the VIII clinical semester, students must develop:

- 8 caries lesions – 4 on temporary teeth /1 with GIC, 3 with polymer/compomer/
- 4 permanent teeth /4 with polymer/
- 2 endodontic treatments – 1 on a temporary, 1 on a permanent tooth
- 2 children – determination of OHI and professional oral hygiene
- 2 children with detailed anamnesis and status, complete rehabilitation, development of an individual preventive program and evaluation of its effect.

SEMINARS :

1. Biological methods of treatment of permanent children's teeth with incomplete root development (partial/total pulpotomy, partial pulpectomy) and indications, methods, means. Endodontic treatment of children's teeth with incomplete root development. Medicinal products, application methods. Treatment of permanent children's teeth with complete root development.
2. Injuries of temporary and permanent children's teeth - diagnosis, clinic and treatment
3. Dental dysplasias - clinic, diagnosis, treatment, prevention.

5th Year English Language Students

IX term PRACTICAL CLASSES

form of classes – clinical practice directed to: diagnosis and treatment of periodontal diseases and diseases of oral mucose at child-juvenile age

duration of classes – 90 minutes (2 academic hours of 45 minutes each week)
number of classes – 15 practical classes (totally 30 academic hours)

Exercise 1: Examination of periodontal apparatus at child-juvenile age. Becoming acquaintant with a registration form of periodontal status by children.

Exercise 2: Methods for registration of periodontal status by children (indices, systems, Rö-gr., probe for vital coloring).

Exercise 3: Gingivitis at child-juvenile age – clinics, diagnosis, treatment (discussion).

Exercise 4: Periodontitis at child-juvenile age – clinics, diagnosis, treatment (discussion).

Exercise 5: Oral hygiene by children with periodontal diseases. Motivation programs. Indices for self-motivation.

Exercise 6 to 14: Clinical practice with children with periodontal diseases

During the IX term, students have to accomplish:

- examination of a child with periodontal changes, status. Indices – 3 clinical cases
- implementation of a motivational program for oral hygiene in children with periodontal problems - 3 clinical cases
- professional oral hygiene. – scaling and root planning – 3 clinical cases
- treatment of gingivitis in children and adolescents - 3 clinical cases
- 1 child with a detailed periodontal focused history and status with development of an individual plan for periodontal treatment and prevention and evaluation of the results.

Exercise 15: Examination in a writing form on the topic: “Periodontal and oral mucose diseases in child-juvenile age.

Discussion of the main topics of the theoretical program during practical classes:

/Discussion of clinical cases of oral mucose diseases on the base of registered patients and Rö-gr./

1. Oral herpes infections at child-juvenile age. Recurrent aphthae and aphthosis at child-juvenile age.
2. Oral candidiasis at children’s age
3. Symptomatic stomatitis, glossitis and cheilitis by children and adolescents.

4. Periodontitis at children's age

5th Year English Language Students X term PRACTICAL CLASSES

form of classes – practical work

duration – 180 min. (4 academic hours of 45 minutes)

number – 30 classes

During the X term students have to accomplish this clinical practice:

- 12 caries lesions - 6 on temporary teeth /2 with GIC, 4 with polymer/compomer/; 6 permanent children's teeth /6 with polymer/
- 4 endodontic treatments - 2 on temporary teeth; 2 on permanent teeth
- 2 children with detailed history and status recorded, development of an individual plan for the treatment and prevention of the teeth and periodontium, complete rehabilitation and evaluation of the results.

SEMINARS :

1. Medications used for the treatment of oral mucosa and periodontal diseases in childhood.
2. Dental examination of a child. Psychological problems during dental treatment in childhood. Methods of non-pharmacological management of the behavior of children during dental treatment.
3. Methods of pharmacological management of the behavior of children during dental treatment. Treatment under general anesthesia. Indications for extractions of temporary/permanent teeth in childhood. Local anesthesia in childhood - types of local anesthesia and anesthetics.

The education program at Clinics of pediatric dentistry ends
with a practical exam and successfully taking a theoretical exam at the end of
the 10th term.

TOPICS FOR INDIVIDUAL WORK:

1. Characteristics of the clinics, diagnostics and treatment of caries of temporary teeth

2. Characteristics of the clinics, diagnostics and treatment of early childhood caries
3. Characteristics of the clinics, diagnostics and treatment of caries of permanent children's teeth
4. Methods of biological treatment for permanent children's teeth
5. Pulp treatment of permanent children's teeth with incomplete root development
6. Peculiarities in the clinic, diagnosis and treatment of periodontitis of permanent children's teeth with incomplete root development
7. Methods of non-pharmacological management of behavior during dental treatment of children.
8. Dental dysplasias, clinics, treatment, prevention
9. Traumas to temporary and permanent children's teeth
10. Characteristics of the clinics, diagnostics and treatment of periodontitis with early onset
11. Characteristics of the clinics, diagnostics and treatment of gingivitis in childhood
12. Vesiculo-erosive stomatitis in childhood
13. Recurrent aphtae and aphthosis in childhood
14. Oral candidiasis in childhood

RECOMMENDED LITERATURE:

- Christian H. Splieth. *Revolutions of pediatric dentistry*, 2011, Quintessence
- Amr M. Moursi, Marcio A. da Fonseca, Amy Truesdale. *Clinical cases in Pediatric dentistry*; June 2012, Wiley-Blackwell
- Jeffrey A. Dean, David R. Avery, Ralph E. McDonald. *McDonald and Avery Dentistry for the Child and Adolescent*, 8th Edition, 2004, Mosby, Elsevier.
- Angus C. Cameron, Richard P. Widmer. *Handbook of Pediatric Dentistry*, 4th Edition, 2013, Mosby, Elsevier
- Paul Casamassimo, Henry Fields, Dennis McTigue, Arthur Nowak. *Pediatric Dentistry 5th Edition Infancy through Adolescence*, 2012, Elsevier

- Vinay Kumar Srivastava. Modern Pediatric Dentistry. 2011. JAYPEE BROTHERS MEDICAL PUBLISHERS.
- Babaji P. CROWNS IN PEDIATRIC DENTISTRY. 2015. Jaypee Brothers Medical Publishers
- Berg H.J, Slayton L.R. Early Childhood Oral Health. 2009. Wiley-Blackwell.
- Asnani H.K. Essentials of Pediatric Dentistry. 2010. Jaypee Brothers Medical Publishers.
- Chaudhary M, Chaudhary D.S. Essentials of Pediatric Oral Pathology. 2011. Jaypee Brothers Medical Publishers
- Baart A.J, Brand S.H. Local Anaesthesia in Dentistry. 2009. Wiley-Blackwell
- Srivastava. K.V. Modern Pediatric Dentistry. 2011. Jaypee Brothers Medical Publishers
- Koch G, Poulsen S. Pediatric Dentistry. A clinical approach. 2009. Wiley-Blackwell
- Fuks B.A, Peretz B. Pediatric Endodontics. Current Concepts in Pulp Therapy for Primary and Young Permanent Teeth. 2016. Springer.
- Duggal S.M, Curzon J.E.M, Fayle A.S, Toumba J.K, Robertson J.A Restorative Techniques in Paediatric Dentistry. 2002. 2nd edition. Taylor & Francis e-Library.
- American Academy of Pediatric Dentistry. Reference Manual of Pediatric Dentistry. 2020.
- Andreasen O.J, Baklan K.L, Flores T.M, Andreasen M.F, Andersson L. Traumatic dental injuries – a manual. 2011. 3rd edition. Wiley-Blackwell

Syllabus for Clinics of Pediatric dentistry

1. Examination of child with dental diseases.
2. Psychological problems in the daily dental practice – factors, determining the child's behavior: assessment of child's anxiety.
3. Methods for modeling child's behavior – non-pharmacological management.

4. Methods for modeling child's behavior – pharmacological management. Treatment under general anesthesia.
5. Dental caries on primary teeth – features, classification, clinical symptoms, diagnostics and treatment
6. Dental caries on children's permanent teeth – features, classification, clinical symptoms, diagnostics and treatment.
7. Restoration materials in pediatric dentistry. Preformed metal crowns. Operative treatment of the dental caries in primary and permanent teeth in childhood age. .
8. Early childhood caries – risk factors, features, diagnostics, clinical symptoms and treatment.
9. Pulpitis on primary teeth – morphologic features, etiology, classification, diagnostics, clinical symptoms and treatment.
10. Pulpitis on children's permanent teeth – classification, features, diagnostics, clinical symptoms and treatment.
11. Biological methods of treatment of the children's permanent teeth – indirect and direct pulp capping. Calcium hydroxide agents – types, mechanism of their effect.
12. Biological methods of treatment of pulpitis of children's permanent teeth in childhood age – vital pulpotomy, partial pulpectomy.
13. Periodontitis in primary teeth – classification, features, diagnostics, clinical symptoms and treatment.
14. Periodontitis in children's permanent teeth with incomplete root development – classification, features, diagnostics, clinical symptoms and treatment. Apexification.
15. Periodontitis in children's permanent teeth with complete root development. Contemporary methods of treatment and root canal obturation.
16. Traumatic injuries in primary teeth – classification, features, diagnostics, clinical symptoms and treatment.
17. Traumatic injuries in children's permanent teeth in childhood age – classification, features, clinical symptoms and treatment.
18. Extraction of temporary teeth - indications, anesthesia (premedication, types of local anesthesia, anesthetics). Space maintainers.

19. Hereditary dysplasia – classification, diagnostics, clinical symptoms and treatment.
20. Congenital and acquired dysplasia – classification, diagnostics, clinical symptoms and treatment.
21. Oral mucosa diseases in childhood age – etiology, pathogenesis, classification.
22. Periodontal diseases in childhood age – etiology, classification, indexes.
23. Plaque induced and plaque associated gingivitis in childhood age.
24. Non-plaque associated gingivitis in childhood age.
25. Herpes infections in childhood age. Acute herpetic gingivostomatitis.
26. Oral candidiasis in childhood age.
27. Recurrent aphtae and aphthosis in childhood age.
28. Periodontitis in childhood age – aggressive periodontitis – classification, etiology, clinical symptoms and treatment.
29. Periodontitis associated with common diseases and syndromes in childhood age.
30. Symptomatic stomatitis due to infectious diseases.
31. Symptomatic stomatitis due to blood diseases and disturbances
32. Symptomatic stomatitis due to gastro-intestinal diseases and hypovitaminosis.
33. Symptomatic stomatitis due to mucocutaneous diseases.
34. Symptomatic due to rare diseases and syndromes.
35. Cheilitis and glositis.

Department Council of 104/02.12.2022

Developer of the Syllabus: Assoc. prof. dr. M. Georgieva – Dr. DMD, PhD

Approved by Chair of the Department: Assoc. prof. dr. M. Georgieva – Dr. DMD, PhD

