



**Course: Pedatric dentistry**

**Course Coordinator:** Prof.prom.Nataša Ivančić Jokić, PhD, DDM

**Course Collaborators:** Prof.prom.Danko Bakarčić, PhD, DDM  
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**Department:** Department of Pediatric dentistry

**Study program:** University Integrated Undergraduate and Graduate Study of Dental Medicine  
(in English)

**Study year:** 4

**Academic year:** 2023./24.

## **SYLLABUS**

**Course description (a brief description of the course, general instructions, where and in what form the lessons are organized, necessary equipment, instructions for attendance and preparation for classes, student obligations, etc.):**

Application of theoretical knowledge: access to the child and preparing the child for dental medical procedures, treatment of dental and oral diseases in children from infant to adolescents. Practical mastery of: Method for caries prevention, diagnostic procedures, treatment of deciduous and young permanent teeth, dental treatment in persons with developmental disabilities, methods of treating the most common types of dentofacial injuries and timely recognition of malocclusion.

**Assigned reading:**

1. Koch G., Poulsen S., Espelid I., Haubek D. Pediatric Dentistry: A Clinical Approach . Wiley-Blackwell, 2017.
2. Cameron A., Widmer RP. Handbook of pediatric dentistry. 4<sup>th</sup> Edition. Elsevier, 2013.
3. Andreasen JO., et all. Traumatic Dental Injuries, A Manual. 2<sup>nd</sup> Edition. Blackwell Munsgaard, 2003.
4. Texts from lectures

**Optional/additional reading:**

1. Harris N.O., Garcia-Godoy F., Nielsen Nathe C. Primary preventive dentistry. 8<sup>th</sup> Edition. Pearson, 2014.
2. Casamassimo P. et all. Pediatric Dentistry; Infancy through Adolescence. 5<sup>th</sup> Edition. Elsevier, 2012
3. Jurić H. Dječja dentalna medicina. Jastrebarsko: Naklada Slap; 2015.
4. Bakarčić D, Ivančić Jokić N. Osnove prevencije karijesa i parodontnih bolesti. Split: Redak; 2013. Str
5. Zukanović A, Gržić R. Stomatološko liječenje medicinski kompromitiranih pacijenata. Zagreb: Hrvatska komora dentalne medicine; 2012



## **COURSE TEACHING PLAN:**

### **The list of lectures (with topics and descriptions):**

<p>P1. Introduction to pediatric dental medicine, first visit, child development <u>Expected learning outcomes</u> Familiarize yourself with the aim of the pediatric dental medicine course, the specifics of working with children and the basics of child development.</p> <p>P2. Specificities of the child's behavior <u>Expected learning outcomes</u> Describe the specifics of the development of a child's behavior in a dental office with regard to age</p> <p>P3. Behavior control techniques <u>Expected learning outcomes</u> Describe and compare techniques for controlling child behavior in the dental office with regard to age and behavior classification. Describe and compare the forms of behavior of children in the dental office describe, define and perform methods of behavior control in children define and differentiate between dental fear and dental anxiety.</p> <p>P4. Tooth development, Chronology of tooth mineralization and eruption <u>Expected learning outcomes</u> Describe the growth and development of teeth, pulp and roots, describe and differentiate disorders of the development of teeth and oral structures from normal findings.</p> <p>P5. Complications of tooth eruption, Tooth root resorption <u>Expected learning outcomes</u> Describe and compare the complications of tooth eruption, deviations from the normal eruption pattern, and be able to explain the mechanisms that occur during physiological and pathological tooth root resorption.</p> <p>P6. MIH, Dental fluorosis <u>Expected learning outcomes</u> Define and differentiate the etiology of MIH and dental fluorosis, and notice the differences between them and recognize the differences in the clinical picture.</p> <p>P7. Development of occlusion, Characteristics of deciduous and permanent dentition <u>Expected learning outcomes</u> Describe the development of occlusion and understand the changes that occur in the transition from deciduous to mixed and permanent dentition.</p> <p>P8. The first examination of the child <u>Expected learning outcomes</u> Describe and perform the first examination of the child with regard to age and developed cooperation with the child. Adopt the elements that are necessary for a proper and comprehensive dental examination of the child.</p>
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**P9. Diagnostic methods and procedures in pediatric dentistry**

Expected learning outcomes

Describe and define the diagnostic methods and procedures that are used for the diagnosis of dental and oral cavity pathology in children.

**P10. Pain control and premedication in children**

Expected learning outcomes

Define and distinguish between painful conditions, mechanisms of pain generation and action, and know how to apply methods and procedures to eliminate pain. Get acquainted with the possibilities of applying premedication as a means of solving anxiety in children and creating conditions for cooperation in the dental office.

**P11. Anesthesia in pediatric dentistry**

Expected learning outcomes

Describe and state the techniques of local anesthesia that are used when performing dental procedures in children. Know how to apply local anesthetic and the technique of performing local anesthesia with regard to the indication.

Describe the possibilities of performing dental procedures under general anesthesia. Learn to define indications and contraindications for procedures under general anesthesia, and become familiar with the way anesthesia is administered.

**P12. Caries lesion and its therapy (initial and superficial)**

Expected learning outcomes

Describe and diagnose the initial carious lesion, and know how to apply all the therapeutic methods used in its treatment.

**P13. Caries lesion and its therapy (dentin caries)**

Expected learning outcomes

Describe, recognize and diagnose an advanced caries lesion, and know the possible complications of untimely treatment. To acquire knowledge that enables the application of all the therapeutic methods available to us for the treatment of caries.

**P14. Endodontic therapy of primary teeth**

Expected learning outcomes

To describe the etiology and accurate diagnosis of the condition of the pulp of primary teeth. State and describe the pathology of pulp diseases.

**P15. Endodontic therapy of primary teeth**

Expected learning outcomes

Describe the pulp treatment techniques of primary teeth

To define therapeutic methods that enable the treatment of pulpopathy for the purpose of preserving the vitality of the dental pulp or preserving the teeth in the jaw.

The lectures are set up on the Merlin e-learning system



**The list of practicals with descriptions:**

Practicals are conducted at the Pediatric Dentistry Department of the KBC Rijeka Dental Clinic, which is located in office number 3 at Krešimirova 40. Students actively participate in the Department's clinical work under the supervision of pedodontics specialists and dental doctors. Given the level of acquired knowledge, they independently perform the treatment of pathological changes in the oral cavity in children

**Students' obligations:**

All forms of teaching are mandatory, and accordingly we will conduct checks of the presence of students in lectures, seminars, and practical work. Only justified absences due to illness or similar reason are accepted, in the framework of permissible regulations on the study. Student must actively participate in all forms of teaching, is obliged to prepare and present the seminar and pass a final exam.

**Assessment (exams, description of written / oral / practical exam, the scoring criteria):**

Students evaluation and assessment is provided during classes (clinical exercises) and at the final exam. According to the regulations on studies at the University of Rijeka, a student must achieve at least 50% of the grade during classes in order to be able to take the final exam. Other 50% student achieve during the final exam. The final grade represents the sum of grade points achieved during classes and at the final exam.

Exercises are held during the 8th, 9th, 10th and 11th semesters.

During the exercises, the student must independently perform the following activities that are rated 0 - 1- 2 points:

- 2 systematic examination of children (extraoral examination, intraoral examination, dental status)
- 2 treatment plan
- 2 Analysis of X-ray images in children (intraoral shots, orthopantomograph shots)
- 2 preventive measures for cleaning soft sediments
- 2 Restoration of teeth in a child (from 3 - 18 years of age)

A student in the exercises can get a maximum of 20 points.

There will be a continuous verification of knowledge through written colloquium that will be held at the end of the 8th, 9th and 10th semesters.

Each written colloquium consists of 20 questions, and points begin to be collected when 50% of the test is solved. Each correct answer (over 50% of the test answers) carries 1 (one) point.

A maximum of 10 points can be collected per colloquium (3 colloquium - max 30 points).

Final 50% of the grade the student acquires the final exam.

The final exam is consists of practical, written and oral part.

The practical part brings maximal 10 points, written part 10 points and oral part 30 points.

Practical implementation of the evaluation of the clinical dental examination by a medical form that consists of 25 items which are rated from 0 - 1 - 2 points.

Score threshold is:



37-40 ... ..7 points  
41-44 ... ..8 points  
45-47 ... ..9 points  
48-50 ... ..10 points

The written part consists of 10 questions, and the points start to be collected after solving 50% of the test. Each correct answer (above 50% of the test solution) carries 2 (two) points

The oral part of the exam - student must respond positively to questions covering all sections of dental medicine in childhood.

In order to be able to be judged the final grade, the student must successfully pass the final exam. If student does not pass the final examination, he/she will receive a total negative score. The student has the right to access the next test period.

Final grade:

- the points achieved in the colloquiums and exercises are added to the points from the exam
- final grade:

0-49.9 % insufficient 1 F  
50-59.9% enough 2 D  
60-74.9% good 3C  
75-89.9% very good 4 B  
90-100% excellent 5 A.

#### **Other important information regarding to the course:**

The introductory lecture will be held according to the scheduled schedule, while the other lectures will be posted on the e-learning system MERLIN as part of the e-college.

Any use of another's text or other form of author's work, as well as the use of ChatGPT or any of another tool whose functionality is based on artificial intelligence technology, without clear and unambiguous citation of sources, is considered a violation of someone else's copyright and the principle of academic integrity and represents

serious violation of student obligations, which entails disciplinary responsibility and disciplinary measures accordingly Rulebook on disciplinary responsibility of students.

Consultation time: Thursday 14.00-15.00

### **COURSE SCHEDULE (for the academic year 2023/2024)**

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
27.02.2024	P1 e-kolegij			Prof.prim.dr.sc. Nataša



	11.00-12.30			Ivančić Jokić
28.02.2024			V1 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović, dr.med.dent.
<b>5.3.2024</b>	P2 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
6.3.2024			V2 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent
12.3.2024	P3 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
13.3.2024			V3 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović, dr.med.dent.
19.3.2024	P4 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
20.3.2024			V4 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent
<b>26.3.2024</b>	P5 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
<b>27.3.2024</b>			V5 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović, dr.med.dent.
2.4.2024	P6 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
3.4.2024			V6	Prof.prim.dr.sc. Danko



			15.30-17.00 D	Bakarčić Odri Cicvarić, dr.med.dent
9.4.2024	P7 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
10.4.2024			V7 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović, dr.med.dent.
16.4.2024	P8 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
17.4.2024			V8 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent
23.4.2024	P9 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
24.4.2024			V9 15.30-17.00 D	Dorotea Petrović, dr.med.dent.
30.4.2024	P10 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
7.5.2024	P11 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
8.5.2024			V10 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent
14.5.2024	P12 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
15.5.2024			V11 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović,



				dr.med.dent.
21.5.2024	P13 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
22.5.2024			V12 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent
28.5.2024	P14 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
29.5.2024			V13 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Dorotea Petrović, dr.med.dent.
4.6.2024	P15 e-kolegij 11.00-12.30			Prof.prim.dr.sc. Nataša Ivančić Jokić
5.6.2024			V14 15.30-17.00 D	Prof.prim.dr.sc. Danko Bakarčić Odri Cicvarić, dr.med.dent

**List of lectures, seminars and practicals:**

	<b>LECTURES (Topics)</b>	<b>Teaching hours</b>	<b>Location/Lecture room</b>
P1	Introduction to pediatric dental medicine, first visit, child development	2	Krešimirova 40
P2	Specificities of the child's behavior	2	Krešimirova 40
P3	Behavior control techniques	2	Krešimirova 40
P4	Tooth development, Chronology of tooth mineralization and eruption	2	Krešimirova 40
P5	P5. Complications of tooth eruption, Tooth root resorption	2	Krešimirova 40
P6	MIH, Dental fluorosis	2	Krešimirova 40
P7	Development of occlusion, Characteristics of deciduous	2	Krešimirova 40





	and permanent dentition		
P8	The first examination of the child	2	Krešimirova 40
P9	Diagnostic methods and procedures in pediatric dentistry	2	Krešimirova 40
P10	Pain control and premedication in children	2	Krešimirova 40
P11	Anesthesia in pediatric dentistry	2	Krešimirova 40
P12	Caries lesion and its therapy (initial and superficial)	2	Krešimirova 40
P13	Caries lesion and its (dentin caries)	2	Krešimirova 40
P14	Endodontic therapy of primary teeth	2	Krešimirova 40
P15	Endodontic therapy of primary teeth therapy	2	Krešimirova 40
	<b>TOTAL TEACHING HOURS</b>	<b>30</b>	

	<b>PRACTICALS (Topics)</b>	<b>Teaching hours</b>	<b>Location/Lecture room</b>
V1	First patient visit, medical history (anamnesis)	2	Krešimirova 40 ordinacija 3
V2	Psychological approach to the child, behavior control techniques	2	Krešimirova 40 ordinacija 3
V3	The first examination of the child	2	Krešimirova 40 ordinacija 3
V4	The first examination of the child	2	Krešimirova 40 ordinacija 3
V5	Determination and recognition of primary and permanent teeth	2	Krešimirova 40 ordinacija 3
V6	Determination and recognition of primary and permanent teeth	2	Krešimirova 40 ordinacija 3
V7	Determining the type of dentition, analysis of X-ray images	2	Krešimirova 40 ordinacija 3
V8	Occlusion analysis	2	Krešimirova 40 ordinacija 3
V9	Techniques of administration of local anesthesia	2	Krešimirova 40 ordinacija 3
V10	Conservative therapy of hard dental tissues	2	Krešimirova 40 ordinacija 3
V11	Conservative therapy of hard dental tissues	2	Krešimirova 40 ordinacija 3
V12	Conservative therapy of hard dental tissues	2	Krešimirova 40 ordinacija 3



V13	Conservative therapy of hard dental tissues	2	Krešimirova 40 ordinacija 3
V14	Conservative therapy of hard dental tissues	2	Krešimirova 40 ordinacija 3
<b>TOTAL TEACHING HOURS</b>		<b>28</b>	

	<b>FINAL EXAM DATES</b>
1.	
2.	
3.	

	<b>Lectures</b>	<b>Seminars</b>	<b>Practicals</b>	<b>Total</b>
Total number	30	0	28	58
On-line	28	0	0	0
Percentage	93%	0		48%