

					10 classes	
		16.3.	Practice: classes			
17.	Other forms of activities	17.1.	Project assignments: classes			
		17.2.	Independent assignments: classes			
		17.3.	Home study - assignments			
18	Signature requirements	Regular attendance and activity in lectures (minimum 60%). Regular attendance and activity in exercises (90%). In order to take the colloquiums and the final exam, the student must have passed the course Basis of periodontology. If the student does not pass all three colloquiums provided for continuous assessment, they take a final test worth 40 points and a final practical and oral exam worth 60 points.				
19	Grading method					
	19.1.	Colloquiums: points			30 points	
	19.2.	Seminar paper/project, written and oral presentation: points			10 points	
	19.3.	Final exam: points			60 points	
20	Grading criteria (points/grade)		up to 59 points		5 (five) (F)	
			from 60 to 68 points		6 (six) (E)	
			from 69 to 76 points		7 (seven) (D)	
			from 77 to 84 points		8 (eight) (C)	
			from 85 to 92 points		9 (nine) (B)	
			from 93 to 100 points		10 (ten) (A)	
21.	Method of monitoring the quality of instruction		Self-evaluation by students, control by assistants in carrying out practical instruction and assessment of the students' success, as well as the pass rate of students who have passed the course			
22.	Literature					
	22.1.	Required literature				
		Ord. No.	Author	Title	Publisher	Year
		1.	Michael G. Newman et al.	Carranza's Clinical periodontology, 12th edition	Elsevier 2012	2015
		2.	Pandilova et al.	Clinical Periodontology (internal script)	Faculty of Dentistry	2014
		3.	Dirjanska et al.	Clinical Periodontology (practicum)	Faculty of Dentistry	2014
	22.2.	Additional literature				
		Ord. No.	Author	Title	Publisher	Year
		1.	Atanasovska et al.	Periodontal chart	Faculty of Dentistry	2014
		2.	Ivanovski K	Periodontology – internal lecture script	Ivanovski K	2012

Attachment No. 3		Course program for the first cycle of studies			
1.	Course title	Pediatric dentistry 2			
2.	Code	DMMPD5			
3.	Study program	Dentistry - integrated first and second cycle of studies			
4.	Organizer of the study program (unit, i.e., institute, department, division)	UKIM - Faculty of Dentistry – Skopje, Department of Pediatric and Preventive Dentistry			
5.	Degree (first, second, third cycle)	Integrated First and Second Cycle Studies			
6.	Academic year/semester	Year	5	Semester	9 и 10 semesters
7.	Course workload	8			

	expressed in ECTS credits	
8.	Teacher (in case of multiple teachers, designated teacher in charge)	Prof. Dr. Elizabeta Gjorgievska, *All professors from the department will be included in the instruction
9.	Language in which the curriculum is conducted	English
10.	Necessary prerequisites for taking and passing the course	Completed all mandatory courses from the fourth year and passed all mandatory courses from the third year
11.	Course objectives (competences) and learning outcomes:	After attending theoretical classes, conducting practical exercises and passing the exam, the student should: be able to perform an examination, assess the psychological type of the patient and determine a treatment plan; know the growth and development in the orofacial region, know the chronology of the dentition in children, and diagnose and treat dental anomalies; diagnose and treat caries in primary and permanent teeth; diagnose and treat diseases of the pulp and periodontal tissues, soft tissues in the mouth, as well as complications from general, nutritional and metabolic disorders; know how to select and apply adequate dental material in accordance with the indication; plan and perform oral surgical interventions in children; diagnose and treat trauma and complications of trauma in children; plan and perform aesthetic procedures in children; plan and perform prosthodontic interventions in children.
12.	Detailed course content by chapters and units with learning outcomes for each chapter	Chapter 1. Endodontic treatment and aesthetic procedures in children Treatment of pulp diseases in teeth with incomplete root growth.....2 classes Materials in Pediatric dentistry: cavity toileting agents, materials for temporary cavity closure, bases, liners, materials for definitive root canal obturation, restorative materials (composites, glass-ionomer cements, hybrid materials).2 classes Dental aesthetics in children: fabrication of superstructures, veneers, teeth whitening.....1 class Use of lasers in Pediatric dentistry: cavity preparation, preparation for placement of composites and fissure sealants, endodontics, oral surgical treatment, LLLT, teeth whitening 1 class Learning outcomes from Chapter 1: The student acquires theoretical and practical knowledge about contemporary endodontic procedures in teeth with incomplete root growth, about the appropriate use of dental materials, and about the application of contemporary methods and technologies in Pediatric dentistry, including lasers and aesthetic procedures. Chapter 2. Oral Tissue Diseases in Children Diseases of the soft tissues in the oral cavity in children: mucosal injuries (mechanical, thermal, chemical, radiation); diseases of the lips: Cheilitis exfoliativa, Cheilitis angularis, Cheilitis glandularis, Melkersson-Rosenthal syndrome, Ascher syndrome, morphological changes; diseases of the tongue: Linguageographica, Linguavillosa nigra, developmental anomalies of the tongue (Linguaplicata, Glossitis rhombica mediana, Macroglossia, Microglossia, Aglossia, Linguabifida, Ankyloglossia).....3 classes Diseases of the gums: Gingivitis catarrhalis, Gingivitis hyperplastica, Gingivitis fibromatosa, Gingivitis ulceronecroticans, Gingivitis in emergence, Pericoronitis); diseases of the periodontal tissue: etiology, classification, therapeutic modalities.....2 classes Oral manifestations of infectious diseases: bacterial, viral, fungal infections; oral manifestations of systemic diseases: hematological diseases (diseases of the red, white blood cells, diseases with a tendency to bleed), skin, cardiovascular, respiratory, endocrine, and renal, gastrointestinal diseases); disorders of the immune system: primary, secondary changes, autoimmune diseases; metabolic disorders; nutritional disorders: deficiency of proteins, calcium and phosphorus, magnesium, individual microelements, vitamins.....3 classes Learning outcomes from Chapter 2: The students are introduced to the wide range of pathological conditions that affect oral tissues in children, including diseases of the oral mucosa, lips, tongue, gingiva, and periodontium, as well as oral manifestations of systemic diseases and infections. This knowledge is fundamental for the correct diagnosis and treatment of the numerous oral pathological conditions in children.

	Chapter 3. Dental trauma and its complications Injuries to teeth and supporting tissues in children: epidemiology, etiology, treatment procedure - anamnesis, clinical examination, paraclinical examinations, diagnosis; classification of injuries2 classes Therapeutic procedures for injuries to teeth and supporting tissues in children.....2 classes Complications of injuries to teeth and supporting tissues.....1 class Learning outcomes from Chapter 3: The students acquire thorough knowledge of dental trauma in children, including their classification, diagnostics, modern therapeutic protocols, and management of possible complications. Tumors and cysts in childhood.....2 classes Chapter 4. Pedoprostodontics and interceptive orthodontics Pedoprostodontics in primary and permanent dentition; interceptive orthodontics.....2 classes Learning outcomes from Chapter 4: The students are introduced to the basic principles of prosthodontic treatment in children and to interceptive orthodontic measures that are used to prevent the development of malocclusions and other orthodontic problems. Chapter 5. Oral surgery and pharmacotherapy in children Oral surgical interventions in children: extractions of primary and permanent teeth, indications and contraindications, instrumentation, methodology, complications during and after tooth extraction, specific oral surgical interventions in children.....2 classes Dentogenic infections in children: etiology, diagnosis, types, therapy... 1 class Antibiotics and other antimicrobial medications in childhood: types, dosage and modalities of application, combination of antibiotics, prophylactic administration of antibiotics.....2 classes Emergency conditions: allergic reactions, collapse, hysterical attack, epileptic attack, airway obstruction, hypo- and hyperglycemia, hypo- and hyperventilation syndrome.....2 classes Tumors and cysts in childhood.....2 classes Learning outcomes from Chapter 5: The Students learn about the specifics of oral surgical interventions in children, including indications, contraindications, and techniques of performance. In addition, the students are introduced to the principles of pharmacotherapy in pediatric patients, especially the use of antibiotics and other antimicrobial drugs. The students also learn how to recognize and treat emergency conditions that may occur in the dental office. In addition, the students are introduced to the basic principles of diagnosis and treatment of tumors and cysts that occur in childhood. Total: 30 classes Practical teaching - exercises 1. Endodontic treatment and aesthetic procedures – practical exercises (12 classes) Use of dental materials in pediatric dentistry: cavity toileting agents, materials for temporary cavity closure, bases, liners, materials for definitive root canal obturation, restorative materials (composites, glass-ionomer cements, hybrid materials).....3 classes Therapeutic procedures in pulp and periodontal diseases: vital and mortal methods in treatment, treatment of periodontal diseases in primary teeth.....3 classes Therapeutic procedures in pulp and periodontal diseases: vital and mortal methods in treatment, treatment of periodontal diseases in permanent teeth.....3 classes Therapeutic treatment of pulp diseases in teeth with incomplete root growth.....3 classes Implementation of aesthetic dental procedures in children: fabrication of superstructures, veneers, teeth whitening 3 classes Application of lasers in pediatric dentistry: cavity preparation, preparation for placement of composites and fissure sealants, endodontics, oral surgical treatment, LLLT, teeth whitening.....3 classes 2. Diagnosis and treatment of oral tissue diseases – practical exercises (17 classes) Dental treatment of soft tissue diseases in the oral cavity in children: mucosal injuries
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		(mechanical, thermal, chemical, radiation) 3 classes Dental treatment of lip diseases: Cheilitis exfoliativa, Cheilitis angularis, Cheilitis glandularis, Melkersson-Rosenthal syndrome, Ascher syndrome, morphological changes3 classes Dental treatment of tongue diseases: Linguaeographica, Lingua villosa nigra, developmental anomalies of the tongue (Lingua plicata, Glossitis rhombica mediana, Macroglossia, Microglossia, Aglossia, Lingua bifida, Ankyloglossia).....3 classes Dental treatment of gingival diseases: Gingivitis catarrhalis, Gingivitis hyperplastica, Gingivitis fibromatosa, Gingivitis ulcero-necroticans, Gingivitis pri izvod, Pericoronitis).....3 classes Dental treatment of periodontal diseases: etiology, classification, therapeutic modalities.....3 classes Dental treatment of patients with oral manifestations of infectious diseases: bacterial, viral, fungal infections ...2 classes Dental treatment of children with oral manifestations of systemic diseases: hematological diseases (diseases of the red, white blood cells, diseases with a tendency to bleeding), skin, cardiovascular, respiratory, endocrine and renal, gastrointestinal diseases)3 classes Treatment of patients with disorders of the immune system: primary, secondary changes, autoimmune diseases.....1 class Procedure in the treatment of patients with metabolic disorders...1 class Procedure in the treatment of children with nutritional disorders: deficiency of proteins, calcium and phosphorus, magnesium, individual microelements, vitamins.....1 class 3. Treatment of dental trauma and its complications – practical exercises (6 classes) Dental procedure for injuries to teeth and supporting tissues in children: epidemiology, etiology, treatment procedure - anamnesis, clinical examination, paraclinical examinations, diagnosis3 classes Therapeutic procedures for injuries to teeth and supporting tissues in children.....3 classes Treatment of complications of injuries to teeth and supporting tissues...3 classes Therapeutic options in the treatment of tumors and cysts in childhood ...3 classes 4. Pedoprostodontics, oral surgery, and emergencies – practical exercises (10 classes) Prosthetic treatment of children in the primary, mixed, and permanent dentition...3 classes Oral surgical interventions in children: extractions of primary and permanent teeth, indications and contraindications, instrumentation, methodology, complications during and after tooth extraction, specific oral surgical interventions in children.....3 classes Bleeding during oral surgical interventions in children and treatment3 classes Therapy in dentogenic infections in children.....3 classes Prescribing antibiotics and other antimicrobial medications in children: dosage and modalities of application, combination of antibiotics, prophylactic administration of antibiotics..... 3 classes Treatment in emergency situations: allergic reactions, collapse, hysterical attack, epileptic attack, airway obstruction, toxic reaction to anesthetics, cardiac arrest, hypo- and hyperglycemia, hypo- and hyperventilation syndrome.....3 classes Interceptive orthodontic procedures.....2 classes Results from practical teaching: Students acquire practical skills for the diagnosis and treatment of various diseases and pathological conditions in Pediatric dentistry. They learn to apply their theoretical knowledge in clinical practice, with a focus on modern endodontic, restorative, and surgical techniques, the treatment of soft tissues, dental trauma and their complications, and the interdisciplinary approach in children. Additionally, they are trained to recognize and manage urgent conditions in the dental office. Total: 75 classes
13	Interrelation of subjects	The course is related to basic medical courses and preclinical dentistry courses, as well as to the subject Pediatric dentistry 1.
14.	Detailed description of the teaching and working methods for the subject	Interactive instruction, exercises, demonstration of clinical cases, practical work with patients under supervision.

			program from the first cycle			
15.	Total available time	240 classes				
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching classes		45 classes	
		16.2.	Exercises (laboratory, auditorium), seminars, teamwork: classes		75 classes	
		16.3.	Practice: classes			
17.	Other forms of activities	17.1.	Project assignments: classes			
		17.2.	Independent assignments: classes			
		17.3.	Home study - assignments		120 classes	
18	Signature requirements	In order to receive a signature, the student must fulfill the obligations during the theoretical and practical instruction.				
19	Grading method					
	19.1.	Tests: points			30	
	19.2.	Seminar paper/project, written and oral presentation: points			10	
	19.3.	Final exam: points			60	
20	Grading criteria (points/grade)		up to 59 points	5 (five) (F)		
			from 60 to 68 points	6 (six) (E)		
			from 69 to 76 points	7 (seven) (D)		
			from 77 to 84 points	8 (eight) (C)		
			from 85 to 92 points	9 (nine) (B)		
			from 93 to 100 points	10 (ten) (A)		
21.	Method of monitoring the quality of instruction		Self-evaluation by students, control by assistants in carrying out practical instruction, and assessment of the students' success, as well as the pass rate of students who have passed the course			
	22.1.	Required literature				
		Ord. No.	Author	Title	Publisher	Year
		1.	Marija Stevanovikj, Mira Jankulovska, John Nicholson, Elizabeta Gjorgievska (editor), Ana Sotirovska – Ivkovska, Zlatko Georgiev, Dejan Markovikj, Aleksandar Dimkov, Meri Pavlevska, Alberto Benedetti, Dragana Gabrikj, Marko Vuletikj, Bernard Jankovikj, Efka Zhabokova-Bilbilova, Tamara Perikj, Bojan Petrovikj, Vesna Ambarkova, Olga Kokocheva-Ivanovska, Jasna Simonoska	Pediatric dentistry	Ars Lamina	2022
		2.	Beloica D isar.	Dečja stomatologija	Elit-Medica Beograd	2000
		3.	Bajraktarova B, Bajraktarova-Valjakova E, Bajraktarova-Mishevska C.	Dental anomalies	NUB Skopje	2011
	22.2.	Additional literature				

		Ord. No.	Author	Title	Publisher	Year
		1.	McDonald R, Avery D	Dentistry for the Child and Adolescent	Mosby, 7 ^{ed}	1999

Attachment No. 3		Course program for the first cycle of studies			
1.	Course title	Emergency conditions and patients at risk			
2.	Code	DMMGN5			
3.	Study program	Dentistry - integrated first and second cycle of studies			
4.	Organizer of the study program (unit, i.e., institute, department, division)	UKIM - Faculty of Dentistry – Skopje, Department of Oral Surgery and Department of Maxillofacial Surgery			
5.	Degree (first, second, third cycle)	Integrated First and Second Cycle Studies			
6.	Academic year/semester	Year	5	semester	9
7	Course workload expressed in ECTS credits	2			
8.	Teacher (in case of multiple teachers, designated teacher in charge)	Teacher in charge: Prof. Dr. Marina Kacarska, *Professors from both departments conduct the teaching			
9.	Language in which the curriculum is conducted	English			
10.	Necessary prerequisites for taking and passing the course	Completed all mandatory courses from the fourth year and passed all mandatory courses from the third year			
11.	Course objectives (competences) and learning outcomes:	The students should gain basic knowledge about the most common emergency conditions in dental practice, characteristic symptomatology and clinical image, therapy and prevention, as well as gain basic knowledge about the specifics of high-risk patients, their systemic disorders, the therapy they receive and the importance of when and how dental treatment is planned and performed in these patients.			
12.	Detailed course content by chapters and units with learning outcomes for each chapter	Theoretical instruction - lectures Chapter 1 - emergency conditions in dental practice - pain in the orofacial region1 class - bleeding.....1 class - acute odontogenic infections.....2 classes - injuries1 class - episodic unconsciousness..... 1 class - urgent cardiovascular conditions.....2 class - urgent respiratory conditions.....2 classes - drug allergic reactions..... 3 classes - drug toxic reactions 2 classes Outcomes from Chapter 1 By mastering the content of the methodological units in this chapter, the students will learn about the most common emergency situations in dental practice, symptomatology and clinical image, diagnosis, differential diagnosis, therapy, and prevention. 2. Chapter – High-risk patients in dental practice -Management of patients with renal insufficiency and end-stage renal disease in the dental office 2 classes - Immunodeficient patients in the dental office. Patients with side effects of cytostatic therapy (admission, treatment) 2 classes - Patients with hepatic disorders2 classes - Blood dyscrasias and hemophilia, management of dental			