Attachment No. 3		Course program of the first cycle of studies			
1.	Course title	Preventive Dentistry			
2.	Code	DMMPD3			
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	3	Semester	6
7	Course workload expressed in ECTS credits	4			
8.	Teacher	Prof. Dr. Ana Sotirovska Ivkovska Prof. Dr. Zlatko Georgiev			
9.	Language in which the curriculum is conducted	English			
10.	Necessary prerequisites for taking and passing the course	All required subjects from the 3rd and 4th semesters have been completed, and all required subjects from the 1st and 2nd semesters have been passed			
11.	Course objectives (competences) and learning outcomes:	Objectives of the course program (competences): after following the theoretical and practical classes and passing the exam, the student acquires knowledge and skills: - to perform a clinical examination, - to assess the level of oral hygiene - to determine which caries risk group the patient belongs to, - to be able to give advice on proper nutrition to preserve oral health - to be able to implement endogenous and exogenous fluoride prophylaxis - to assess the need for sealing fissures and pits, and to implement the technique - to detect an initial carious lesion and to implement all necessary preventive methods for its stopping and healing			
12.	Detailed course content by chapters and units, with learning outcomes for each chapter	Course content: CHAPTER 1. Preventive Dentistry.....2 classes - basics of Preventive Dentistry - definition, - oral health, - categories of oral diseases, - levels of prevention, Results from chapter 1: Students acquire basic knowledge about Preventive Dentistry and how to prevent the occurrence of disease. They are introduced to the three basic categories of diseases in dentristy: dental caries, periodontitis, and oral cancer. Students learn about the three levels of prevention, primary, secondary, and tertiary, and how they are implemented. CHAPTER 2. Oral homeostasis .....4 classes - role of saliva, - muco-enamel barrier and defense of the enamel surface - processes of de- and remineralization, remineralizing agents Results from chapter 2: Students gain knowledge about the protective role of saliva and the buffers in it, as well as the processes that take place in the mouth as a result of food intake and cause a demineralization process that is followed by a remineralization process. Students are introduced to the agents that can be a source of calcium and phosphate ions that improve the remineralization process. CHAPTER 3. Dental Caries .....6 classes - Dental plaque (formation, composition, metabolic activities, mechanical and chemical control) - Etiology of dental caries, definition, primary and secondary factors			

		- Early childhood caries - Caries diagnosis and clinical examination - Caries activity Results from chapter 3: Students acquire basic knowledge about the prevention of dental caries by achieving a balance between the control of oral biofilm, dietary habits, oral hygiene, and the control of the loss of minerals from enamel and dentin, in order to keep teeth healthy. CHAPTER 4. Nutrition and Caries.....2 classes - the influence of nutrition on the occurrence of oral diseases, - the influence of nutrition on developing teeth and functional teeth, - the role of sugars, sugar substitutes, - the influence of fats, proteins, vitamins, and minerals, - cariogenic potential of food Results from chapter 4: Students will learn about the influence of nutrition on the occurrence of oral diseases. Students are introduced to the effect of sugars on the processes that lead to the occurrence of dental caries and what strategies should be taken to keep teeth healthy. CHAPTER 5. Fluorides in the prevention of dental caries. 4 classes - chemical and biological properties of fluorides, - distribution, biokinetics, toxicology, - mechanism of cariostatic effect of fluorides - endogenous, exogenous, and combined methods of fluoride prophylaxis Results from chapter 5: The student is introduced to fluoride as a powerful tool in controlling the process of caries formation, the balance of loss/return of minerals in the tooth structure and how it is incorporated into the structure of hard dental substances and protects them from the formation of carious lesions. CHAPTER 6. The role of oral hygiene in the prevention of oral diseases .....2 classes - oral hygiene equipment, - brushing technique, frequency, and length - the influence of fluorides in toothpastes - clinical effect of biofilm control on the occurrence of dental caries and periodontitis - chemical control of dental plaque Results from chapter 6: The student becomes familiar with the means and methods used for the prevention of dental caries and periodontitis through mechanical removal of biofilm by applying professional and individual strategies. They are also familiar with the chemical means that can help control the occurrence of mature dental plaque. CHAPTER 7. Sealing of fissures and pits.....2 classes - method of sealing of fissures and pits, - meaning, indications, and contraindications, - technique of performance, - materials for sealing Results from chapter 7: The student becomes familiar with the morphological characteristics of teeth that have fissures and pits, and how to prevent the accumulation of biofilm in them and prevent the occurrence of carious lesions. Students are trained to perform the technique of sealing fissures and use different materials for that purpose. CHAPTER 8. Caries risk or caries activity.....2 classes - determination of caries risk, - determination of caries activity - saliva, quantity, buffer capacity, - microorganisms in saliva, - Karyogram Results from chapter 8: The student is introduced to the techniques of how to effectively deal with dental caries throughout life through the detection and diagnosis of carious lesions with a focus on understanding the activity of the

		lesion and determining the risk of caries for each tooth and in each patient. CHAPTER 9. Dental erosion .....1 class - etiology, - external and internal factors, - biological factors - prevention Results from chapter 9: The student is introduced to the erosion of teeth caused by acids that are not of bacterial origin, diagnosis of the disease, early detection, severity of changes, and how to prevent their occurrence. CHAPTER 10. Preventive and interceptive orthodontics .....2 classes - etiology and prevention of orthodontic irregularities in the prenatal and postnatal period, - premature loss of primary teeth, - interceptive measures in children of preschool and school age - prevention of traumatic injuries to the teeth and jaws, - predisposing factors, - use of mouthguards Results from chapter 10: The student is introduced to the occurrence of orthodontic anomalies as a result of anomalies in the development of teeth and jaws. The early treatment in each child is carried out individually. The student is introduced to the importance of preserving primary teeth and their role in preventing the occurrence of these anomalies. The students are introduced to the fabrication of mouthguards that can significantly reduce the risk of injury to the teeth and mouth. CHAPTER 11. Prevention of periodontitis .....1 class - etiopathogenesis - clinical signs and diagnosis - prevention and therapy of periodontal diseases - chemoprophylaxis of oral diseases Results from chapter 11: Students will learn about periodontitis as a complex inflammatory disease that can be a risk factor for other diseases in the body. Students gain knowledge about methods for preventing and treating this disease. CHAPTER 12. Oral Health Promotion .....2 classes - strategies for preserving and promoting oral health, - dental education, - methods and means of dental education, - influence of motivational factors on dental education Results from chapter 12: The student becomes familiar with the strategies that should be taken to preserve oral health at a global and individual level, what methods and means should be taken to educate patients about preserving the health of teeth and periodontal tissues. Practical teaching-exercises - Introductory exercises, oral health and categories of oral diseases, levels of prevention, patient admission, and plan for the implementation of preventive dental activities .....4 classes - Role of dental plaque in the occurrence of dental caries and periodontitis, plaque indicators, methods of mechanical and chemical control .....4 classes - Oral hygiene, basic and auxiliary equipment, technique, duration, frequency of brushing .....4 classes - Diagnostics of the risk of dental caries, nutrition, oral hygiene, quantity, buffer capacity, microorganisms in saliva, karyogram……..3classes - Fluorides in the prevention of dental caries, endo- and exogenous methods, combined methods, home and professional use of fluorides .....4 classes - Methods of sealing fissures and pits, indications and contraindications, performance technique, sealing materials...4 classes - Education and motivation in the promotion of oral health, holding educational lectures and workshops in preschool and school institutions

		……..4 classes - Detection of initial carious lesion..... 3 classes Total ..... 30 classes Results of performing the exercises: the student acquires knowledge and skills to perform a clinical examination, recognize immature and mature dental plaque and its removal, recognize the first signs of periodontitis, train patients to maintain oral hygiene, use chemical agents to control dental plaque, implement endogenous and exogenous fluoride prophylaxis, perform the technique of sealing fissures and pits, provide advice on healthy nutrition, educate patients to adopt healthy habits, recognize initial carious lesion and implement preventive measures for its repair.			
13	Interrelation of subjects	Connection with Oral hygiene, Pediatric dentistry			
14.	Detailed description of the teaching and working methods for the subject	Interactive teaching, clinical exercises, examination, recognition and removal of dental plaque, chemical control of dental plaque, endogenous and exogenous application of fluoride preparations, sealing of fissures and pits, implementation of healthy eating habits, education and motivation of patients for the promotion of oral health.			
15.	Total available time	120 classes			
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching. classes	30 classes	
		16.2.	Exercises (laboratory, lecture), seminars, teamwork: classes	30 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	60 classes	
18	Signature requirements	To have 60% of the points provided for lectures and exercises			
19	Method of assessment				
	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)	from 59 points		5 (five) (F)	
		60 to 68 points		6 (six) (E)	
		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 teaching	Self-evaluation by students, control of assistants in carrying out practical teaching and assessment of the students' success, as well as the pass rate of students who have passed the course			

22. Literature

Required literature

Ord. No.	Author	Title	Publisher	Year
1.	Limeback H.	Comprehensive Preventive Dentistry	Wiley Blackwell	2012
2.	Harris O.N., Garcia-Godoy F, Christine Nathe C.N.	Primary Preventive Dentistry	Pearson	2013
3.	Vulovikj MD et al.	Preventive Dentistry	Faculty of Dentistry Belgrade	2002

		4.	Bajrić E et al.	Basics of Preventive dentistry with clinical application in practice	University of Sarajevo – Faculty of Dentistry with Dentistry clinical center, Sarajevo	2024
	22.2.	Additional literature				
		Ord. No.	Author	Title	Publisher	Year
		1.	Ivanovski Kj, Pandilova M	Oral health	Faculty of Dentistry Skopje	2008
		2.	Jankulovska M	Fluorides in the oral environment for the prevention of dental caries	Faculty of Dentistry Skopje	2006
		3.	Stevanovikj M	Microelements, nutrition, and caries	Faculty of Dentistry Skopje	2004