Attachment No. 3		Course program for the first cycle of studies
1.	Course title	Dental pharmacology
2.	Code	DMEDP4

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 and Periodontal Diseases and Department of Endodontics and Restorative dentistry)			
5.	Degree (first, second, third cycle)	Integrated First and Second Cycle Studies			
6.	Academic year/semester	Year	4	semester	7
7	Course workload expressed in ECTS credits	2			
8.	Teacher (in case of multiple teachers, designated teacher in charge)	Teacher in charge: Prof. Dr. Vera Radojkova – Nikolovska; Prof. Dr. Marina Eftimoska			
9.	Language in which the curriculum is conducted	English			
10.	Necessary prerequisites for taking and passing the course	None			
11.	Course objectives (competences) and learning outcomes:	Acquires basic knowledge about the effects of medications used in dental offices. Possesses practical knowledge about storing medications and preparing solutions of medications for local use that are often used in dental offices.			
12.	Detailed course content by chapters and units with learning outcomes for each chapter	Theoretical instruction -lectures - General pharmacology 2 (Introduction, name, classification, and method of preparation of medications; Pharmacokinetics and pharmacodynamics of medications; Grouping and dosing of medications; and Interaction and adverse effects of medications). -Antiseptics and disinfectants 2 (Oxidizing agents; Halogen compounds; Phenols and related compounds; Essential oils; Aromatic acids; Organic antiseptic dyes; and surfactants). -Antibacterial medications and medications that act on the blood and blood organs 2 (Sulfonamides; Antibiotics; Antimycotics; Virostatics; Antianemics; Anticoagulants and Hemostatics) -Vitamins and hormones 1 (Vitamin A; Vitamin D; Vitamin E; Vitamin K; Vitamin B complex; and Vitamin C; Adrenal cortex hormones; Pancreatic hormones; and Bone metabolism hormones). -Preparations for local application to the oral mucosa, histamines, and antihistamines 1 (Legaset, Dontizolon; Periocur; Dexamethasone–neomycin paste; and Solcoseryl adhesive paste). -Analgesics and local anesthetics, and vasoconstrictors 2 (mediators of pain and endogenous analgesia; Opioid analgesics and analgesic antipyretic medications). -Dental caries protection agents – fluorides 2 (Pharmacokinetics and mechanism of action of fluorides; Application of fluorides in caries prevention and side effects of fluorides).			

		-Preparations for local application in cariology and endodontics 2 (Means for temporary closure of cavities; Means for stimulation of dentinogenesis; Means for devitalization of the pulp and means for canal filling). -Medications used in pregnant women, nursing mothers and the elderly 1 Total: .....15 classes Practical teaching - exercises The practical instruction will cover content that is taught as part of the theoretical teaching: Application of antibiotics in dentistry, antiseptics and disinfectants, medications in endodontic treatment, medications for emergency conditions, medications for special groups of patients (children, the elderly, pregnant women), etc. From the first chapter .....2 classes From the second chapter .....2 classes From the third chapter .....2 classes From the fourth chapter .....2 classes From the fifth chapter .....2 classes From the sixth chapter .....2 classes From the seventh chapter .....1 classes From the eighth chapter .....1 classes From the ninth chapter .....1 classes Total .....15 classes		
13	Interrelation of subjects	Pharmacology		
14.	Detailed description of the teaching and working methods for the subject	Interactive teaching, exercises, working in small groups, presentation and performance of laboratory procedures, demonstration of instruments and methods used, teamwork.		
15.	Total available time	60 classes		
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching classes	15 classes
		16.2.	Exercises (laboratory, auditorium), seminars, teamwork: classes	15 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	30 classes
18	Signature requirements	Regular attendance at lectures and exercises, and if the student takes the final exam, they will take the written part of the exam, which brings (40 points), and the oral part of the exam, which brings (60 points)		
19	Grading method			
	19.1.	Tests: points		30 points
	19.2.	Seminar paper/project, written and oral presentation: points		7 points from exercises and 3 points from lectures (total 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.	Silvana Georgieva and Iliana Muratovska	Dental pharmacology	Faculty of Dentistry - Skopje	2014
	22.2.	Additional literature				
		Ord. No.	Author	Title	Publisher	Year
		1.	Ileana Linchir et al.	Pharmacology for dentists	Medcinska naklada - Zagreb	2011