

		2.	Isaacson KG, Muir JD, Reed RT.	Removable orthodontic appliances.	Oxford: Wright	2002.
		3.	Graber TM, Newmann B.	Removable orthodontic appliances. 2nd ed.	Philadelphia: W B Saunders Co;	1984
		4.	Teachers from the Department of Orthodontics	Presentation slides	Faculty of Dentistry University of Ss Ss. Cyril and Methodius Skopje	
	22.2.	For further reading				
		Serial number	Author	Title	Publisher	Year
		1.	Mileusnic B, Jovanovic D.	Orthodontic appliances with foundation of orthodontics	Institute for textbooks and teaching aids, Belgrade	2004

Serial number: 25

Annex no. 3		First cycle study program			
1.	Title of courses	Occlusion			
2.	Code	PDTMOC2			
3.	Study Program	Professional Dental Technicians			
4.	Organizer of the study program (unit, i.e. institute, department, division)	UKIM - Faculty of Dentistry – Skopje, Department of Dental Prosthetics			
5.	Degree (first, second, third cycle)	First Cycle			
6.	Academic year/semester	Year	2	semester	4
7.	Course load expressed in ECTS credits	3			
8.	Teacher (in case of multiple teachers, a responsible teacher is appointed)	Prof. Aneta Mijoska, PhD and teachers from the Department of Dental Prosthetics			
9.	Course language	English			
10.	Necessary prerequisites for listening to and passing the course	None			
11.	Course objectives (competencies) and learning outcomes:	Students will be trained to correctly diagnose normal occlusion as well as occlusion abnormalities, reconstruct occlusion with prosthetic constructions, and establish occlusal balance in patients with removable and fixed prosthetic restorations.			
12.	Detailed content of the course by chapters and units with learning outcomes for each chapter	Theoretical teaching Chapter 1 - Introduction and concept of occlusion and articulation Prosthetic and orthodontic concepts of occlusion. Static and dynamic occlusion, individual occlusion, centric relation, articulation (protrusive, retrusive and lateral movements) 1 class Articulation in natural and artificial dentition, factors determining articulation (condylar guide, incisal guide) 1 class			

	<i>Outcomes of the 1st chapter: the student will be introduced to the basic principles of occlusion and articulation in natural and artificial teeth</i> Chapter 2 – Analysis and diagnosis of occlusion and articulation Concept and analysis of occlusal function, articulation analysis, plaster studio models, pantographic analysis 1 class Occlusal kinesiology – concept of mandibular movement, limit movements of the mandible in the sagittal, frontal and horizontal planes, rotational axes of the condyles 1 class <i>Outcomes of the 2nd chapter: the student will be introduced to the basic concepts of occlusal kinesiology and the analysis of intercuspal position, premature contacts, boundary movements and rotational axes</i> Chapter 3 - Occlusal morphology of teeth depending on the action of vertical and horizontal forces Occlusal characteristics of incisor teeth (horizontal and vertical overlap, incisal guide), occlusal characteristics of the transcanine region, abutments and guide tubercles 1 class Occlusion – tripodization – tuber-crest contact 1 class <i>Outcomes of the 3rd chapter: the student will be introduced to the occlusal characteristics of the teeth in the frontal and transcanine regions and to the concept of three-point contact-tripodization</i> Chapter 4 - Prerequisites for obtaining optimal occlusion Concept of optimal occlusion, prerequisites for obtaining optimal occlusion (five criteria for stability and resistance) 2 classes <i>Outcomes of the 4th chapter: The student will be introduced to the basic criteria for achieving optimal inclusion in patients, will learn the prerequisites for the production of optimal fixed and mobile prosthetic constructions.</i> Chapter 5 - Disorders of occlusion and function of the masticatory system and therapy The concept of an obstacle (developmental and functional) and the concept of an irregularity of the functions of the masticatory system 1 class Therapy of obstacles and irregularities in the function of the masticatory system (making of bite, covering and verticalization splints) 1 class <i>Outcomes of the 5th chapter: The student will learn how to recognize functional disorders of the masticatory system and how to make mobile temporary therapeutic devices in the dental laboratory (biting splints).</i> Chapter 6 – Articulators and data transfer with Face arc Terms of articulators, selection and data transfer, studio models. Occlusal recordings of the lower jaw movement (central relation, intercuspal relation, lateral and protrusive recordings), dynamic recording 1 class <i>Outcomes of the 6th chapter: The student will be introduced to articulators and the method of placing models, the terms occlusal image and dynamic image. Will master the procedures for transferring data from the patient to the articulator</i> Chapter 7 - Occlusion in complete dentures Selection of distal teeth and occlusal contour in complete dentures.
--	--

		Balanced, unbalanced (monoplane) and lingual occlusion, Laws of articulation, Hanau quint, Theilman' formula. The concept of occlusal scheme, types of schemes (anatomical, semi-anatomical and non-anatomical teeth). 2 classes <i>Outcomes of the 7th chapter: The student will be introduced to occlusion in complete dentures, occlusal contours and patterns in postcanine teeth.</i> Chapter 8 - Occlusal Balancing of Implant-Prosthetic Restorations Planning and Design of Occlusal Patterns in Superstructures, Characteristics of Implant Occlusion, Management of Occlusal Forces. Recommendations for Occlusal Concepts in Superstructures 2 classes <i>Outcomes of the 8th chapter: The student will be introduced to the occlusion of superstructures and the principles for selecting the shape and size of teeth and occlusal concepts and patterns.</i> Total:..... 15 classes <i>Exercises:</i> <i>Laboratory exercises correspond to theoretical lectures.</i> Total:..... 15 classes		
13	Interrelationship of courses	Connection with Biomechanics of the Masticatory System,Technology of Fixed Protheses (bridges) and Technology of Removable Protheses (Partial and Complete Dentures)		
14.	Detailed description of the teaching and working methods for the subject	Interactive teaching (theoretical), small groups work (seminars) and other forms foreseen by the common ECTS criteria		
15.	Total available classes fund	90 classes		
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching, classes	15
		16.2.	Exercises (laboratory, classroom), seminars, teamwork: classes	15
		16.3.	Practice: classes	
17.	Other forms of activities	17.1.	Project work: classes	
		17.2.	Individual work: classes	10
		17.3.	Homework - tasks	50
18	Signature requirements	Attendance to 60% of theoretical classes and 80% exercises		
19	Method of the evaluation			
	19.1.	Tests: points		30
	19.2.	Seminar work/project, written and oral presentation: points		10
	19.3.	Final exam: points		60
20	Evaluation 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 teaching		Self-evaluation by students, control of assistants in carrying out practical teaching and assessment of the	

		achieved success of students, as well as the pass rate of students who have passed the course				
22.	Literature					
	22.1.	Compulsory literature				
		Serial number	Author	Title	Publisher	Year
		1.	Ljuben Guguvchevski	Occlusion	Ein-Sof	1997
		2.	Vesna Korunovska Stevkovska	Principles of Occlusion in Dental Prosthetics		2013
	22.2.	For further reading				
		Serial number	Author	Title	Publisher	Year
		1.	Steven E. Eckert	Functional Occlusion <i>in</i> Restorative Dentistry <i>and</i> Prosthodontics	Elsevier, Mosby	2015
		2.	Peter E. Dawson	Functional Occlusion: From TMJ to Smile Design	Elsevier, Mosby	2007
		3.	Hamish Thomson	Occlusion	Elsevier	2016

Serial number: 26

Annex no. 3		First cycle study program			
1.	Title of courses	Periodontics and Oral Medicine			
2.	Code	PDTMPO2			
3.	Study Program	Professional Dental Technicians			
4.	Organizer of the study program (unit, i.e. institute, department, division)	UKIM - Faculty of Dentistry – Skopje, Department of Oral and Periodontal Diseases			
5.	Degree (first, second, third cycle)	First Cycle			
6.	Academic year/semester	Year	2	semester	4
7.	Course load expressed in ECTS credits	4			
8.	Teacher (in case of multiple teachers, a responsible teacher is appointed)	Prof. Dr. Aneta Atanasovska Stojanovska and teachers from the Department of Oral and Periodontal Diseases			
9.	Course language	English			
10.	Necessary prerequisites for listening to and passing the course	Credits earned from Anatomy and Physiology of the Masticatory System, Oral Histology and Physiology Signature from the course of Reconstructive Dental Procedures			
11.	Course objectives (competencies) and learning outcomes:	By completing and passing the course, the student should obtain in-depth knowledge of the macroscopic and microscopic characteristics of periodontal tissues, with an emphasis on the marginal periodontium, the biological width and the biological zone. The student will obtain basic knowledge of periodontal disease, the causes of its occurrence and the factors that influence the course of the disease and the relationship between prosthetic restorations and the periodontium. The student will also obtain basic knowledge of the morphologies of the oral mucosa and will be introduced to the most common infections that			