

		of students who have passed the course				
22.	Literature					
	22.1.	Compulsory literature				
		Serial number	Author	Title	Publisher	Year
		1.	E. Jankulovska	Total prosthesis – pre-clinic	Faculty of Dentistry, Skopje	2005
		2.				
		3.				
	22.2.	For further reading				
		Serial number	Author	Title	Publisher	Year
		1.	A. Damien Walmsley et al.	Restorative Dentistry	Ars Lamina LLC	2011
		2.	James B. Smith et al	Fundamentals of Dental Restoration	Ars Lamina LLC	2011
		3.	Joey D. Da Silva, David A. Mitchell, Laura Mitchell, Paul Brunton	American Handbook of Restorative Dentistry	Ars Lamina LLC	2011

Serial number: 17

Annex no. 3		First cycle study program			
1.	Title of courses	The Basics of Orthodontics			
2.	Code	PDTMBO2			
3.	Study Program	Professional Dental Technicians			
4.	Organizer of the study program (unit, i.e. institute, department, division)	UKIM - Faculty of Dentistry – Skopje, Orthodontics Department			
5.	Degree (first, second, third cycle)	First Cycle			
6.	Academic year/semester	Year	2	semester	3
7.	Course load expressed in ECTS credits	5			
8.	Teacher (in case of multiple teachers, a responsible teacher is appointed)	Prof. Dr. Irena Gavrilovikj and teachers from the Department of Orthodontics			
9.	Course language	English			
10.	Necessary prerequisites for listening to and passing the course	Attended all compulsory courses of First year			
11.	Course objectives (competencies) and learning outcomes:	The student should understand the normal growth and development of the stomatognathic system, become familiar with the etiological factors of malocclusions, types of malocclusions in the sagittal, transversal and vertical directions, irregularities of individual teeth and dental arches, as well as methods and procedures for their diagnosis. The student acquires knowledge of the production of studio models and the procedures and methods of occlusalization. The student is introduced to preventive and interceptive measures and acquires knowledge of the production of interceptive appliances for early orthodontic treatment of reverse bite in the front, treatment of bad habits and early treatment of progenic bite. The student is			

		introduced to the instruments and equipment used in the orthodontic dental laboratory.
12.	Detailed content of the course by chapters and units with learning outcomes for each chapter	Theoretical teaching Chapter 1 – Growth and Development of Orofacial Structures and Classification of Malocclusions Prenatal and Postnatal Growth and Development in the Orofacial Region 1 class Characteristics of normal occlusion in primary and mixed dentition and stages of development of normal occlusion 1 class General etiological factors for the development of malocclusions ... 1 class Local etiological factors for the development of malocclusions 1 class Classification and characteristics of orthodontic irregularities of individual teeth 1 class Irregularities of dental arches 1 class Classification of irregularities in the sagittal plane 1 class Classification of irregularities in the vertical and transversal plane .. 1 class Malocclusion diagnostics – history, clinical examination, x-ray examination, photo examination 1 class Study models – taking anatomical impressions, casting models, occlusalization, making the base of the models 1 class <i>Results of Chapter 1 – the student will be trained to know the normal growth and development of the orofacial system, the etiological factors of orthodontic irregularities and their classification. The student will be introduced to the procedures for casting anatomical impressions and casting models</i> Chapter 2 – Orthodontic Dental Laboratory, Interceptive Orthodontics Organization of work in a dental laboratory, instruments and devices in an orthodontic dental laboratory 1 class Orthodontic preventive and interceptive measures and methods 1 class Early correction of anterior crossbite – spatula exercises, oblique plane (mobile, fixed, direct and indirect method of preparation) 1 class Early treatment of underbite – chin rest 1 class Interceptives of bad habits: thumb sucking, tongue thrusting, mouth breathing – vestibular plate, tongue depressor, myofunctional devices, palatal curtain and tongue grating, palatal apparatus for swallowing exercises 1 class <i>Results of Chapter 2, the student will focus on education and knowledge of preventive and interceptive measures and methods in orthodontic therapy, with special emphasis on the oblique plane, vestibular plate, chin rest, and appliances for breaking bad habits.</i> Total.....15 classes

		<i>Exercises:</i> Introduction to the orthodontic dental laboratory and the instruments and equipment used in orthodontic techniques. Taking an imprint from a phantom. Casting an imprint. Making a studio model using rubber and plastic mold formers or using a plaster trimmer. Making a vestibular plate. Making a tongue depressor, Making devices for breaking bad habits, a palatal curtain and a tongue grate. Making an oblique plane. Making a chin rest. Total 60 classes				
13	Interrelationship of courses	Orthodontic appliances 1 Orthodontic appliances 2				
14.	Detailed description of the teaching and working methods for the subject	Interactive teaching, laboratory exercises, work in small groups, Introduction to the dental laboratory for orthodontics, introduction to the instruments and equipment in orthodontic technique. Taking an anatomical impression from a phantom, pouring the impression, making studio models and casting the models with different casting techniques. Demonstration of the technique for making various types of interceptive appliances and aids. Independent research in preparation of a seminar paper.				
15.	Total available classes fund	150 classes				
16.	Forms of teaching activities	16.1.	Lectures - theoretical teaching, classes			15
		16.2.	Exercises (laboratory, classroom), seminars, teamwork: classes			60
		16.3.	Practice: classes			
17.	Other forms of activities	17.1.	Project work: classes			
		17.2.	Individual work: classes			15
		17.3.	Homework - tasks			60
18	Signature requirements	To obtain a signature, attendance to at least 60% of the theoretical classes demonstrated activity classes, attendance to at least 80% of the exercises, and a prepared and presented operation are required.				
19	Method of the evaluation		Written and oral			
	19.1.	Tests: points				50
	19.2.	Seminar work/project, written and oral presentation: points				10
	19.3.	Final exam: points				40
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.	Gabriela Kjurchieva Chuchkova	Orthodontics Part one	Faculty of Dentistry - Skopje, Ss. Cyril and Methodius University Skopje	2023
		2.	Lidija Kanurkova	Orthodontics Part two	Faculty of Dentistry - Skopje, Ss. Cyril and Methodius University Skopje	2021
		3.	Marija Zuzhelova	Orthodontics for technicians	Faculty of Dentistry - Skopje, Ss. Cyril and Methodius University Skopje	2004
		4.	Gjorgova J., Kanurkova L., Dzipunova B., Tosheska-Spasova N.	Orthodontic morphological analysis and diagnostics.	Faculty of Dentistry - Skopje, Ss. Cyril and Methodius University Skopje	2012
	22.2.	For further reading				
		Serial number	Author	Title	Publisher	Year
		1.	Virtz U.	Atlas of orthodontic and orofacial orthopedic technique	Dentaurum	2016
		2.	Mileusnic B, Jovanovic D.	Orthodontic appliances with foundation of orthodontics	Institute for textbooks and teaching aids, Belgrade	2004
		3.	Lapter V et al	Ortodontske naprave	Shkolska knjiga, Zagreb	1992

Serial number: 18

Annex no. 3		First cycle study program			
1.	Title of courses	Biomechanics of the Masticatory System			
2.	Code	PDTMBM2			
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	3
7.	Course load expressed in ECTS credits	3			
8.	Teacher (in case of multiple	Prof. Natasha Stavreva, PhD			