



Orthodontics

1. IMPRINT

Academic Year	2026/2027
Faculty	Faculty of Medicine and Dentistry
Field of study	English Dentistry Division
Main scientific discipline	Medical science
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Stationary
Type of module / course	Obligatory
Form of verification of learning outcomes	Exam
Educational Unit	Department of Orthodontics, Medical University of Warsaw ul. Binieckiego 6, 02-097 Warszawa, tel.: 22 116 64 54 e-mail: ortodoncja@wum.edu.pl

Head of Educational Unit	Prof. dr hab. n. med. Ewa Czochrowska
Course coordinator	Prof. dr hab. n. med. Ewa Czochrowska, ewa.czochrowska@wum.edu.pl
Person responsible for syllabus	Prof. dr hab. n. med. Ewa Czochrowska, e-mail: ewa.czochrowska@wum.edu.pl
Teachers	Prof. dr hab. n. med. Ewa Czochrowska; ewa.czochrowska@wum.edu.pl Dr n. med. Monika Walerzak; monika.walerzak@wum.edu.pl Dr n. med. Anna Widmańska-Grzywaczewska; anna.widmanska-grzywaczewska@wum.edu.pl Lek. dent. Katarzyna Regulska; katarzyna.regulska@wum.edu.pl

2. BASIC INFORMATION				
Year and semester of studies	5 th year, 9 th and 10 th semester		Number of ECTS credits	6
FORMS OF CLASSES		Number of hours	ECTS credits calculation	
Contacting hours with academic teacher				
Lecture (L)		-	-	
Seminar (S)		10	0,4	
Discussions (D)		80	3,6	
e-learning (e-L)		-	-	
Practical classes (PC)		-	-	
Work placement (WP)		-	-	
Unassisted student's work				
Preparation for classes and completions		50	2	

3. COURSE OBJECTIVES	
C1	Consolidation of knowledge related to the recognition of malocclusion and dental anomalies.
C2	Consolidation of knowledge related to an examination and diagnostic methods in orthodontics.

C3	Consolidation of knowledge related to etiology and epidemiology of malocclusions.
C4	Consolidation of knowledge related to orthodontic prophylaxis.
C5	Consolidation of knowledge related to the management of medical documentation.
C6	Consolidation of knowledge related to anamnesis and clinical examination of a patient.
C7	Diagnosis of a malocclusion.
C8	Planning of orthodontic treatment.
C9	Learning the principles of a holistic approach in orthodontics.
C10	Management of dentofacial deformities.

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of effects of learning in accordance with standards of learning	Effects in time
Knowledge – Graduate* knows and understands:	
F.W1.	occlusal norms at different stages of individual development and deviations from the norms
F.W2.	principles of prophylactic and therapeutic procedures in diseases of the masticatory system at various stages of development
F.W4.	symptoms, course and management in selected diseases of the oral cavity, head and neck, considering age groups
F.W12.	causes of complications of the stomatognathic system diseases and the principles of management in case of such complications
F.W14.	methods of masticatory apparatus rehabilitation
F.W15.	therapeutic methods for reducing and relieving pain and reducing anxiety and stress
F.W17.	principles of construction and application of removable and fixed orthodontic appliances
F.W18.	principles of radiological diagnostics
F.W19.	pathomechanism of the influence of oral cavity diseases on general health
F.W22.	principles of management in the case of diseases of the tissues of the masticatory organ and dental, jaw and facial injuries
F.W23.	the specificity of dental care for a patient burdened with a general disease and the principles of cooperation with the physician in charge of the underlying disease
Skills– Graduate* is able to:	

F.U1.	conduct a medical interview with the patient or his family
F.U2.	conduct a dental physical examination of the patient
F.U3.	explain to the patient the essence of his ailments, establish the treatment method confirmed by the patient's informed consent and the prognosis
F.U4.	provide the patient or his family with information about poor prognosis
F.U6.	interpret results of additional tests and consultations
F.U7.	determine indications and contraindications for a specific dental procedure
F.U9.	proceed in the event of general and local complications during and after dental procedures
F.U11.	keep current patient records, prescribe referrals for tests or for a specialized dental and medical treatment
F.U12.	formulate research problems in the field of dentistry
F.U13.	present selected medical problems in oral or written form, in a manner adequate to the level of recipient
F.U15.	establish treatment in diseases of the stomatognathic system tissues
F.U18.	diagnose, differentiate and classify malocclusions
F.U19.	provide assistance in the event of damage to the orthodontic appliance
F.U20.	make simple orthodontic appliances
F.U21.	conduct prophylactic treatment to prevent malocclusion in the period of primary and early mixed dentition
F.U23.	describe dental and panoramic radiographs
G.U15.	provide the patient with the necessary information in the field of oral health promotion
G.U20.	work with the principles of ergonomic work organization
G.U26.	keep medical records

*In Appendices for the Regulations of the Minister of Science and Higher Education from 26th July 2019 is written "a graduate", not "a student"

5. ADDITIONAL EFFECTS OF LEARNING (<i>non-compulsory</i>)	
Number of effects of learning	Effects of learning in time
Knowledge – Graduate knows and understands:	
W1	
Skills– Graduate is able to:	

U1	
Social Competencies – Graduate is ready for:	
K1	

6. CLASSES		
Form of class	Class contents	Effects of Learning
Seminars	S1 – Seminar 1 – Impacted teeth – treatment management. Definition of an impacted tooth, etiology, epidemiology and diagnosis of tooth impaction, methods of treatment of tooth impaction, possibilities of orthodontic and surgical treatment, complications.	F.W1., F.W2., F.W4., F.W12., F.W14., F.W17., F.W18., F.W22.
	S2 – Seminar 2 – Interdisciplinary treatment of morphological malocclusions. Description of the main principles for treatment of morphological malocclusions, types and classification of skeletal malocclusions, factors of importance for treatment planning of skeletal malocclusions, aims and therapeutical possibilities of interdisciplinary treatment.	F.W1., F.W2., F.W4., F.W14., F.W17., F.W18., F.W22.
	S3 – Seminar 3 – Application of cephalometric diagnosis in orthodontic treatment. Summary of cephalometric analysis and presentation of WUM analysis. Application of the results of cephalometric analysis in planning and evaluation of orthodontic treatment.	F.W4., F.W18.
	S4 – Seminar 4 – Orthodontic treatment in different age groups. Differentiation between age groups regarding planning of orthodontic treatment. Extraction versus non-extraction treatment. Interdisciplinary adult orthodontic treatment.	F.W1., F.W2., F.W4., F.W12., F.W15., F.W17., F.W23.,
Exercises	Exercises – 1 semester C1 – Entry colloquium in the scope of the 4th year program in orthodontics and discussion of the results. Presentation of principles of work during exercises in relation to sanitary and epidemiological regulations as well as occupational health and safety, the application of standards contained in the code of medical ethics, showing respect for the patient and his family, and understanding for ideological and cultural differences. Getting to know the orthodontic instruments.	F.W1., F.W2., F.W4., F.W14., F.W23., C.U16., F.W17., F.W19, F.U1., F.U2., F.U3., F.U4., F.U6.F.U7., F.U9., F.U11., F.U13. F.U15., F.U18., F.U21., F.U23., G.U26.
	C2 – Principles of treatment in orthodontic patients and how to collect and keep orthodontic records, filling out an orthodontic chart: anamnesis. Getting to know the orthodontic instruments.	F.W1., F.W2., F.W4., F.W14., F.W17., F.W18., F.W22., F.U1., G.U26.
	C3 – Principles of treatment in orthodontic patients and how to collect and keep orthodontic records, filling out an orthodontic chart: clinical examination. Getting to know how to write a referral to other specialists.	F.U3., F.U6., F.U7., F.U9., F.U11., F.U13., F.U15., G.U15.
	C4 – Principles of treatment in orthodontic patients and how to collect and keep orthodontic records, filling out an orthodontic chart: analysis of additional records.	F.W1., F.W2., F.W4., F.W14., F.W17., F.W18., F.W22., F.U1., G.U26.
		F.W1., F.W2., F.W4.,

C5 – Principles of treatment in orthodontic patients and how to collect and keep orthodontic records, filling out an orthodontic chart: cephalometric analysis.	F.W14., F.W17., F.W18., F.W22., F.U1., F.U2., F.U6. F.U18., G.U26.
C6 – Taking impressions for diagnostic models and making photographic documentation.	F.W1., F.W2., F.W4., F.W14., F.W15., F.W17., F.W18., F.W22., F.U1., F.U2., F.U6. F.U18., G.U26.
C7 – Taking impressions for diagnostic models and making photographic documentation, continued.	F.U6, F.U7., F.U13., G.U39.
C8 – Registration and taking a construction bite.	F.W4., F.W14., F.W17., F.U2., F.U7., F.U18., F.U20. G.U20.
C9– Registration and taking a construction bite. continued	F.W4., F.W14., F.W17., F.U2., F.U7., F.U18., F.U20. G.U20.
C10 – Analysis of orthodontic documentation, describing goals and methods of orthodontic. e-learning.	F.W1., F.W2., F.W4., F.W12., F.W14., F.W17., F.W18., F.W19 F.W22., F.U6., F.U7., F.U18.
C11 – Analysis of orthodontic documentation, describing goals and methods of orthodontic, continued. – e-learning	F.W1., F.W2., F.W4., F.W12., F.W14., F.W17., F.W18., F.W19 F.W22., F.U6., F.U7., F.U18.
C12 – Analysis of orthodontic documentation, describing goals and methods of orthodontic, continued.	F.W1., F.W2., F.W4., F.W12., F.W14., F.W17., F.W18., F.W19., F.W22., F.U6., F.U7., F.U18.
C13 – Presenting the orthodontic treatment plan to the patient and his guardians and obtaining informed consent for treatment.	F.W12., F.W22., F.U3., F.U4., F.U7., F.U15., G.U15., G.U26.
C14 – Principles of prescribing orders for a removable appliance or a thick-arch fixed appliance in an orthodontic laboratory.	F.W12., F.W14., F.W17., F.U11., F.U13., F.U20.
C15 – Delivery of a removable orthodontic appliance and instructions on how to use it.	F.W14., F.W17., F.U3., F.U11., F.U13., F.U20.
C16 – Delivery of removable orthodontic appliances and instructions on how to use them. Hygienic recommendations for patients using orthodontic appliances.	F.W12. F.W14., F.W17., F.U3., F.U11., F.U13., F.U20., G.U15.
C17 – Principles of first aid in the event of damage to removable orthodontic appliances and description of the order to the orthodontic laboratory.	F.U3., F.U4., F.U19.
C18 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during deciduous and mixed dentition.	F.W14., F.W17., F.U3. F.U13., F.U20., F.U21., G.U15., G.U20.
C19 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during mixed and permanent dentition	F.W14., F.W17., F.U3. F.U13., F.U20., F.U21., G.U15., G.U20.

C20 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during mixed and permanent dentition, continued.	F.W14., F.W17., F.U3. F.U13., F.U20., F.U21., G.U15., G.U20.
C21 – Principles of planning orthodontic treatment in cooperation with other specialists as a part of an interdisciplinary team.	F.W4., F.W12., F.W19., F.W22., F.W23., F.U7., G.U26.
C22 – Planning orthodontic treatment in patients with malocclusions in the fronto-orbital plane.	F.W2., F.W4., F.W14., F.U6., F.U7., F.U12., F.U15., F.U18.
C23 – Planning orthodontic treatment in patients with malocclusions in the sagittal plane.	F.W2., F.W4., F.W14., F.U6., F.U7., F.U12., F.U15., F.U18.
C24 – Planning orthodontic treatment in patients with malocclusions in the Frankfurt plane.	F.W2., F.W4., F.W14., F.U6., F.U7., F.U12., F.U15., F.U18.
C25 – Planning orthodontic treatment in patients with dental anomalies.	F.W2., F.W4., F.W14., F.U6., F.U7., F.U12., F.U15., F.U18.
C26 – Evaluation of orthodontic treatment outcomes in patients with deciduous and mixed dentition.	F.U2., F.U6., F.U18., F.U21., G.U15., G.U26.
C27 – Evaluation of orthodontic treatment outcomes in patients with late mixed dentition.	F.U2., F.U6., F.U18., F.U21., G.U15., G.U26.
C28 – Evaluation of orthodontic treatment outcomes in patients with permanent dentition.	F.U2., F.U6., F.U18., F.U21., G.U15., G.U26.

7. LITERATURE

Obligatory

1. Preclinical orthodontics. Zadurska M & Czochrowska E. Dział Wydawnictw Warszawskiego Uniwersytetu Medycznego 2016.
2. Zarys Ortodontji Współczesnej. Red. Ireny Karłowskiej. PZWL 2016.
3. Współczesna diagnostyka ortodontyczna pod red. B.Biedziak, I. Szarmach i M. Zadurskiej. Med. Tour Press International 2025.
4. Ortopedia szczekowa. Red. Florentyna Łabiszewska-Jaruzelska. PZWL 1997.
5. Contemporary Orthodontics 5th edition, Vol. 1. Part 2 chapter 3,4,5; Part 3 chapter 6. Proffit WR, Fields HW, Sarver DM. Elsevier, 2009.
6. Materiały i techniki ortodontyczne pod red. Anny Komorowskiej. Polskie Towarzystwo Ortodontyczne, Lublin 2009.

Supplementary

1. Handbook of orthodontics. 2nd edition. Cobourne M, DiBiase A, Elsevier 2015.
2. Wybrane choroby dziedziczne i wady rozwojowe w praktyce stomatologicznej pod red. Barbary Siemińskiej-Piekarczyk, Małgorzaty Zadurskiej. Med Tour Press International 2008.
3. Orthodontic Forum.

8. VERIFYING THE EFFECT OF LEARNING		
Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
F.W1., F.W2., F.W4., F.W14., F.W17., F.W18., F.W22., F.W23. F.W1., F.W2., F.W4., F.W12., F.W14., F.W15., F.W17., F.W18., F.W19 F.W22., F.W23., F.U1., F.U2., F.U3., F.U4., F.U6., F.U7., F.U9., F.U11., F.U13., F.U15., F.U18., F.U20., F.U23., G.U15., G.U20., G.U26.,	S – oral examination of a student's preparation for a seminar C - 1. entry written colloquium: 8 open questions (2points/1question) and/or multiple-choice test (40 questions, 1 point/1question) Student can enter the clinics only after passing the entry test 2. assessment of a student's work at classes 3. At each exercise a tutorial is held –a written colloquia are performed from different parts of the textbook. Diploma examination: Practical exam includes evaluation of practical skills including orthodontic diagnosis, orthodontic evaluation, methods of orthodontic treatment, treatment planning and orthodontic appliances. It is organized as 5-7 stations. Max. 15 points can be obtained at each station. Written exam (multiple-choice test), 100 single- and multiple-choice questions.	Entry colloquium: level of passing 61% Required material of the orthodontics course from the 4th year. In case of unjustified absence or failing at the first attempt it is necessary to take a written examination as in the first attempt – the same criteria of passing as for the first attempt. In case of failing at the first and the second attempt, the commission entry colloquium is scheduled after written application to the Head of the Department. Student can start clinical exercises only after positive results from the entry colloquium. Credit for classes is based on: attendance, active participation in exercises, theoretical preparation and passing written tutorials. Scores from the tutorials influence the exercise score. The grading scale for tutorials: satisfactory – 61-69%; fairly good – 69.5-76%; good – 76.5-83%; more than good – 83.5-90%; very good – 90.5-100% of the total points obtained from all tutorials Receiving a positive grade from the exercises is necessary to take the diploma examination Exam is passed at 61%. In the case of receiving a failing grade on the practical exam, the student is required to take a retake exam before the written exam. Failure to pass the practical part of the diploma exam prevents the student from taking the test exam. Exam is passed at 61%. The final grade is a weighted average of 3 grades: 25% grade

		for classes, 25% grade for practical exam, 50% grade for the multiple-choice test. The grades are: 4,76 - 5,0 very good (5) 4,26 - 4,75 good plus (4,5) 3,76 - 4,25 good (4) 3,26 - 3,75 acceptable plus (3,5) 2,76 - 3,25 acceptable (3) 2,75 - failed (2)
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9. ADDITIONAL INFORMATION

1. Attendance at all seminars and exercises is mandatory. In the case of an excused absence, the date and form of credit must be arranged with the teacher.
2. Student reports to classes in protective clothes including changing of shoes and with ID including information: student, year, first name, surname.
- 3 During the classes, the student receives the patients scheduled by the assistant for that day.
4. During the classes, according to the schedule, review sessions are held – written tests on the knowledge from individual sections of the textbook.
5. Non-compliance to safety regulations at work and oral hygiene is not allowed.
6. Please be on time to attend classes. Delay of more than 15 minutes will be treated as absence.
7. Using of mobile telephones is prohibited during classes and in clinical rooms.
8. The link to the department's website is: <http://ortodoncja.wum.edu.pl>
9. Coordinator of the 5th year EDD is: Prof. dr hab. n. med. Ewa Czochrowska, e-mail: eczochrowska@wum.edu.pl

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ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students'
Survey of Evaluation of Classes and Academic Teachers