



Orthodontics

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| 1. IMPRINT | |
| Academic Year | 2022/2023 |
| Faculty | Faculty of Dental Medicine |
| Field of study | English Dentistry Division |
| Main scientific discipline <i>(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i> | Medical science |
| Study Profile <i>(general academic / practical)</i> | General academic |
| Level of studies <i>(1st level / 2nd level / uniform MSc)</i> | 1 st level |
| Form of studies | Stationary |
| Type of module / course <i>(obligatory / non-compulsory)</i> | Obligatory |
| Form of verification of learning outcomes <i>(exam / completion)</i> | Exam |
| Educational Unit / Educational Units <i>(and address / addresses of unit / units)</i> | Department of Orthodontics, Medical University of Warsaw ul. Binięckiego 6, 02-097 Warszawa, tel.: 22 116 64 54 e-mail: ortodoncja@wum.edu.pl |

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| Head of Educational Unit / Heads of Educational Units | Prof. dr hab. n. med. Małgorzata Zadurska |
| Course coordinator (title, First Name, Last Name, contact) | Dr hab. n. med. Ewa Czochrowska, e-mail: ortodoncja@wum.edu.pl |
| Person responsible for syllabus (First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported) | Dr hab. n. med. Ewa Czochrowska, e-mail: ortodoncja@wum.edu.pl |
| Teachers | Dr hab. n. med. Ewa Czochrowska; ewa.czochrowska@wum.edu.pl Dr n. med. Monika Walerzak; monika.walerzak@wum.edu.pl Lek. dent. Katarzyna Regulska; katarzyna.regulska@wum.edu.pl Lek. dent. Anna Widmańska-Grzywaczewska; anna.widmanska-grzywaczewska@wum.edu.pl |

1. BASIC INFORMATION

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|-----------------------------------------------|---------------------------------------------------------------------|-------------------------------|---------------------------------|
| 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) | 4 | 0,16 | |
| Discussions (D) | 95 | 3,84 | |
| e-learning (e-L) | 5 | 0.17 | |
| Practical classes (PC) | - | - | |
| Work placement (WP) | - | - | |
| Unassisted student's work | | | |
| Preparation for classes and completions | 50 | 2 | |

2. COURSE OBJECTIVES

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| 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. |

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| 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. |

3. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING (concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)

| Code and number of effects of learning in accordance with standards of learning <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i> | Effects in time |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Knowledge – Graduate* knows and understands: | |
| C.W33. | basic clinical procedures of orthodontic prophylaxis |
| F.W1. | occlusal norms at various stages of individual development and deviations from the norms |
| F.W3. | principles of prophylactic and therapeutic procedures in diseases of the masticatory system at various stages of development |
| F.W5. | course and management in selected diseases of the oral cavity, head and neck, considering age groups |
| F.W14. | causes of complications of the stomatognathic system diseases and the principles of management in case of such complications |
| F.W16. | methods of rehabilitation of the masticatory apparatus |
| F.W18. | influence of physical, chemical and biological factors, vitamin deficiencies and stress |
| F.W20. | principles of construction and function of removable and fixed orthodontic appliances |
| F.W21. | principles of radiological diagnostics |
| F.W22. | pathomechanism of the influence of oral cavity diseases on general health |
| Skills– Graduate* is able to: | |
| C.U16. | plan the basic stages of prophylactic care for patients in the area of orthodontic needs |

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| 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 an unfavorable prognosis |
| F.U6. | interpret the results of additional tests and consultations |
| F.U7. | determine indications for a specific dental procedure |
| F.U8. | know the principles of oral prophylaxis |
| F.U9. | know the management in case of masticatory organ diseases, tooth and jaw bone injuries |
| F.U11. | proceed in the event of general and local complications during and after dental procedures |
| F.U13. | keep current patient records, prescribe referrals for tests or for a specialized dental and medical treatment |
| F.U14. | formulate research problems in the field of dentistry |
| F.U15. | present selected medical problems in oral or written form, in a manner adequate to the level of recipients |
| F.U18. | establish treatment in diseases of the stomatognathic system tissues |
| F.S21. | diagnose, differentiate and classify malocclusion |
| F.U22. | provide help in the event of damage to the orthodontic appliance |
| F.U23. | make simple orthodontic appliances |
| F.U24. | conduct prophylactic treatment to prevent malocclusion in the period of primary and early mixed dentition |
| G.U39. | keep medical records |

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

4. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)

| 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:

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| K1 | |
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5. CLASSES

| Form of class | Class contents | Effects of Learning |
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| 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. | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., 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.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22. |
| 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. | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., C.U16., F.U1.-F.U4., F.U6.-F.U9., F.U11., F.U13.-F.U15., F.U18., F.U21.-F.U24., G.U39. |
| | 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.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W22., F.U1., G.U39. |
| | 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.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W22., F.U2., G.U39. |
| | 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.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W22., F.U6., G.U39. |
| | C5 – Principles of treatment in orthodontic patients and how to collect and keep orthodontic records, filling out an orthodontic chart: cephalometric analysis. | F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W22., F.U6., G.U39. |
| | C6 – Taking impressions for diagnostic models and making photographic documentation. | F.U6, F.U7., F.U13., G.U39. |
| | 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.U6, F.U7., F.U13., G.U39. |

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| C9– Registration and taking a construction bite. continued | F.U6, F.U7., F.U13., G.U39. |
| C10 – Analysis of orthodontic documentation, describing goals and methods of orthodontic. | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., C.U16., F.U6., F.U7., F.U8., F.U9., F.U13., F.U18., F.U21., F.U24., G.U39. |
| C11 – Analysis of orthodontic documentation, describing goals and methods of orthodontic, continued. – e-learning | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., C.U16., F.U6., F.U7., F.U8., F.U9., F.U13., F.U18., F.U21., F.U24., G.U39. |
| C12 – Analysis of orthodontic documentation, describing goals and methods of orthodontic, continued. – e-learning | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., C.U16., F.U6., F.U7., F.U8., F.U9., F.U13., F.U18., F.U21., F.U24., G.U39. |
| C13 – Presenting the orthodontic treatment plan to the patient and his guardians and obtaining informed consent for treatment. | C.U33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., C.U16., F.U3., F.U4., F.U6., F.U7., F.U8., F.U9., F.U11., F.U15., F.U18., F.U21., F.U24., G.U39. |
| C14 – Principles of prescribing orders for a removable appliance or a thick-arch fixed appliance in an orthodontic laboratory. | F.W5., F.W16., F.W20., F.W21., F.W22., F.U9., F.U11., F.U18., F.U21., F.U23., G.U39. |
| C15 – Delivery of a removable orthodontic appliance and instructions on how to use it. | F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., F.U3., F.U4., F.U6., F.U7., F.U8., F.U9., F.U11., F.U15., F.U18., F.U21., F.U23., F.U24., G.U39. |
| Exercises – 2 semester | |
| C1 – Delivery of removable orthodontic appliances and instructions on how to use them. Hygienic recommendations for patients using orthodontic appliances. | C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.W22., C.U16., F.U3., F.U4., F.U6., F.U7., F.U8., F.U9., F.U11., F.U15., F.U18., F.U21., F.U23., F.U24., G.U39. |
| C2 – Principles of first aid in the event of damage to removable orthodontic appliances and description of the order to the orthodontic laboratory. | F.W14., F.U4., F.U15., F.U22., G.U39. |

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| <p>C3 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during deciduous and mixed dentition.</p> | <p>C.W33., F.W1., F.W3., F.W5., F.W16., F.W20., F.W22., C.U16., F.U3., F.U4., F.U7., F.U8., F.U9., F.U13., F.U15., F.U18., F.U21., F.U23., F.U24., G.U39.</p> |
| <p>C4 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during mixed and permanent dentition</p> | <p>C.W33., F.W1., F.W3., F.W5., F.W16., F.W20., F.W22., C.U16., F.U3., F.U4., F.U7., F.U8., F.U9., F.U13., F.U15., F.U18., F.U21., F.U23., F.U24., G.U39.</p> |
| <p>C5 – Delivery of orthodontic appliances or conduction of treatment to prevent development of malocclusion during mixed and permanent dentition, continued.</p> | <p>C.W33., F.W1., F.W3., F.W5., F.W16., F.W20., F.W22., C.U16., F.U3., F.U4., F.U7., F.U8., F.U9., F.U13., F.U15., F.U18., F.U21., F.U23., F.U24., G.U39.</p> |
| <p>C6 – Principles of planning orthodontic treatment in cooperation with other specialists as a part of an interdisciplinary team.</p> | <p>F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., F.U1-F.U4., F.U6-F.U9., F.U11., F.U13-F.U15., F.U18., F.U21-F.U24., G.U39.</p> |
| <p>C7 – Planning orthodontic treatment in patients with malocclusions in the fronto-orbital plane.</p> | <p>C.W33., F.W1., C.U16., F.U6., F.U21</p> |
| <p>C8 – Planning orthodontic treatment in patients with malocclusions in the saggital plane.</p> | <p>C.W33., F.W1., C.U16., F.U6., F.U21</p> |
| <p>C9 – Planning orthodontic treatment in patients with malocclusions in the Frankfurt plane.</p> | <p>C.W33., F.W1., C.U16., F.U6., F.U21</p> |
| <p>C10 – Planning orthodontic treatment in patients with dental anomalies.</p> | <p>C.W33., F.W1., F.W21., C.U16., F.U1., F.U2., F.U6., F.U21.</p> |
| <p>C11 – Evaluation of orthodontic treatment outcomes in patients with deciduous and mixed dentition.</p> | <p>F.W5., F.W14., F.W20., F.U3., F.U4., F.U6., F.U8., F.U11., F.U15., F.U21., F.U22., G.U39.</p> |
| <p>C12 – Evaluation of orthodontic treatment outcomes in patients with late mixed dentition.</p> | <p>F.W5., F.W14., F.W20., F.U3., F.U4., F.U6., F.U8., F.U11., F.U15., F.U21., F.U22., G.U39.</p> |
| <p>C13 – Evaluation of orthodontic treatment outcomes in patients with permanent dentition.</p> | <p>F.W5., F.W14., F.W20., F.U3., F.U4., F.U6., F.U8., F.U11., F.U15., F.U21., F.U22., G.U39.</p> |
| <p>During classes the student treats patients, who are coming for appointments scheduled by an assistant.</p> | |

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| | Once a week a review class is held, in which students deliver presentations on a prepared subject (diagnosis of malocclusion, methods of orthodontic treatment, orthodontic appliances, developmental deformities), after 2 or 3 subjects a written test is performed | |
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6. LITERATURE

Obligatory

1. Preclinical orthodontics. Zadurska M & Czochrowska E. Dział Wydawnictw Warszawskiego Uniwersytetu Medycznego 2016.
2. Zarys Ortodoncji Współczesnej. Red. Ireny Karłowskiej. PZWL 2016.
3. Ortopedia szczekowa. Red. Florentyna Łabiszewska-Jaruzelska. PZWL 1997.
4. Contemporary Orthodontics 5th edition, Vol. 1. Part 2 chapter 3,4,5; Part 3 chapter 6. Proffit WR, Fields HW, Sarver DM. Elsevier, 2009.
5. 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.

7. VERIFYING THE EFFECT OF LEARNING

| Code of the course effect of learning | Ways of verifying the effect of learning | Completion criterion |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C.W33., F.W1., F.W3., F.W5., F.W14., F.W16., F.W18., F.W20., F.W21., C.U16., F.U1.-F.U4., F.U6.-F.U9., F.U11., F.U13.-F.U15., F.U18., F.U21.-F.U24., G.U39. | <p>S – oral examination of a student’s preparation for a seminar</p> <p>C - 1. entry colloquium (descriptive)</p> <p>Student can enter the clinics only after passing the entry test</p> <p>2. assessment of a student’s work at classes</p> <p>3. once a week a review class is held, where students deliver presentations on a prepared subject, after 2 or 3 subjects a written test is performed</p> <p>Student can start clinical exercises only after positive results from the entry colloquium.</p> | <p>Entry : including 8 open questions (2 points for each question): max. 16 points, min 9 points is necessary for the passing of exam.</p> <p>Required material of the orthodontics course from the 4th year and the material from 1 and 2 seminar from the 5th year F.K1., F.K3., F.K5., F.S6., F.S11.</p> <p>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.</p> <p>Credit for classes is based on attendance and active participation, preparing at least one multimedia presentation within the review class, passing a written review test (8 descriptive questions, 2 points for each) – 0-25 points decreases the final grade for classes by 0.5, 26-53 points – credit, 54-64 points increases</p> |

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| | | <p>the final grade for classes by 0.5</p> <p>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, exam is passed at 61%.</p> <p>written exam (multiple-choice test), 100 single- and multiple choice questions.</p> <p>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.</p> <p>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) 2,26 - 2,75 failed (2)</p> <p>The type of exam on-line/stationary depends on the current epidemiological situation.</p> |
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8. ADDITIONAL INFORMATION (information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)

1. Student reports to classes in protective clothes including changing of shoes and with ID including information: student, year, first name, surname. Bags must be put on shelves in clinical rooms.
2. Non-compliance to safety regulations at work and oral hygiene is not allowed.
3. Please be on time to attend classes. Delay of more than 15 minutes will be treated as absence.
4. Using of mobile telephones is prohibited during classes and in clinical rooms.
5. The link to the department's website is: <http://ortodoncja.wum.edu.pl>
6. Coordinator of the 5th year EDD is: Dr hab. n. med. Ewa Czochrowska, e-mail: eczochrowska@wum.edu.pl

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