



SYLLABUS of the MODULE (SUBJECT)

General information

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| Module title: Orthodontics | |
| Module type | Obligatory. |
| Faculty PMU | Medicine and Dentistry (WLS) |
| Major | Medicine and Dentistry (KLD) |
| Specialty | n.a. |
| Level of study | long-cycle |
| Mode of study | full-time/part-time |
| Year of studies, semester e.g. Year 1, semester (I and II) | Year 4 (semester VII and VIII) |
| ECTS credits (incl. semester breakdown) | 4 ECTS (semester TK - 2, VIII– 2) |
| Type/s of training | Lectures–10h (sem. VII) Seminars –5h(sem. VII Practical classes–55h(sem. IX – 25h, sem. VIII – 30h) Total 70h |
| Form of assessment | graded assessment |
| Head of the Department/ Clinic, Unit | Prof. dr hab. n. med. Krzysztof Woźniak |
| Persons conducting classes | prof. dr hab. Krzysztof Woźniak Dr Beata Rucińska-Grygiel Dr Hanna Bielawska-Victorini Dr Lilianna Szyszka-Sommerfeld Dr Agata Budzyńska Dr Paweł Tsynkiel (tutor) |
| Strona internetowa jednostki | https://www.pum.edu.pl/wydzialy/wydzial -- stomatologiczny/zaklad-ortodoncji |
| Language | Polish/English |

Detailed information

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| Module objectives | | The objective of the module is: to integrate knowledge in the field of ontogenetic and phylogenetic development of the facial part of the skull in connection with orthodontics, learning to assess the proper development of the masticatory organ, ability to assess the condition of the masticatory organ in terms of malocclusion, knowledge of etiology of occlusion defects, ability to perform selected treatments in prevention and early orthodontic treatment, knowledge of techniques of occlusion defects treatment with the use of modern tools and equipment. |
| Prerequisite /essential requirements | Knowledge | Knowledge, skills and competences at the level of the completion of IIIrd year of studies in the medical and dental field of study. |
| | Skills | |
| | Competences | |

| Description of the learning outcomes for the subject /module | | | |
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| Item | Student, who has passed the (subject) | SYMBOL (referring to) Assumed Learning Outcomes | Means of verification of learning outcomes* |
| W01 | knows occlusion norms in different phases of ontogenesis and deviations from norms | K_F.W01 | Continuous assessment in practical classes/practical skills assessment |
| W02 | knows and understands the mechanisms leading to organ and systemic pathologies (including infectious, autoimmune and immunodeficiency diseases, metabolic and genetic diseases) | K_F.W02 | |
| W03 | knows rules of prophylactic-therapeutic procedures in diseases of stomatognathic system in different phases of development | K_F.W03 | |
| W04 | knows principles of construction and operation of fixed and removable orthodontic appliances | K_F.W20 | |
| U01 | interviews patient or his/her family | K_F.U01 | |
| U02 | carries out physical examination of patient | K_F.U02 | |
| U03 | provides patient with explanation about nature of ailment, determines treatment confirmed by patient's free consent and prognosis | K_F.U03 | |
| U04 | imparts information about the unfavourable health condition to the patient or his/her relatives | K_F.U04 | |
| U05 | interprets results of ancillary tests | K_F.U06 | |
| U06 | finds indications as to performance of certain dental procedure | K_F.U07 | |

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| U07 | knows prophylaxis of oral cavity diseases | K_F.U08 | |
| U08 | knows principles of conduct of diseases of stomatognathic system tissues, tooth and jaw bones | K_F.U09 | |
| U09 | knows the principles of conduct in the event of occurrence of general and local complications during and after dental procedures | K_F.U11 | |
| U10 | keeps day-to-day patient's records, refers patient to general and special dental and medical examination | K_F.U13 | |
| U11 | identifies research issues connected with his/her work | K_F.U14 | |
| U12 | presents selected medical issues in written or oral form relevantly to the recipient level | K_F.U15 | |
| U13 | establishes treatment in diseases of stomatognathic system tissues | K_F.U18 | |
| U14 | diagnoses, differentiates and classifies malocclusion | K_F.U21 | |
| U15 | provides first aid in case of orthodontic appliance damage | K_F.U22 | |
| U16 | executes simple orthodontic appliances | K_F.U23 | |
| U17 | performs occlusion defect prevention procedure during period of deciduous dentition and early replacement of dentition | K_F.U24 | |
| K01 | shows habit of self-education and lifelong education | K_K01 | |
| K02 | accepts the need for ethical standards and legal conditions relating to the exercise of the profession | K_K02 | |
| K03 | can co-operate with team members and care about occupational safety | K_K03 | |
| K04 | understands sense of responsibility for entrusted property | K_K07 | |

Table presenting LEARNING OUTCOMES in relation to the form of classes

| Item | SYMBOL (referring to) Assumed Learning Outcomes | Form of didactic classes | | | | | | | |
|------|---|--------------------------|---------|-----------|---------------------|-----|-----|-----|-----------|
| | | Lecture | Seminar | Practical | Clinical classes | ... | ... | ... | other ... |
| 1. | K_F.W01 | X | | | X | | | | |
| 2. | K_F.W02 | X | | | X | | | | |
| 3. | K_F.W03 | X | | | X | | | | |
| 4. | K_F.W20 | X | | | X | | | | |
| 5. | K_F.U01 | | | | X | | | | |
| 6. | K_F.U02 | | | | X | | | | |
| 7. | K_F.U03 | | | | X | | | | |
| 8. | K_F.U04 | | | | X | | | | |
| 9. | K_F.U06 | | | | X | | | | |
| 10. | K_F.U07 | | | | X | | | | |
| 11. | K_F.U08 | | | | X | | | | |
| 12. | K_F.U09 | | | | X | | | | |
| 13. | K_F.U11 | | | | X | | | | |
| 14. | K_F.U13 | | | | X | | | | |
| 15. | K_F.U14 | | | | X | | | | |
| 16. | K_F.U15 | | | | X | | | | |
| 17. | K_F.U18 | | | | X | | | | |
| 18. | K_F.U21 | | | | X | | | | |
| 19. | K_F.U22 | | | | X | | | | |
| 20. | K_F.U23 | | | | X | | | | |
| 21. | K_F.U24 | | | | X | | | | |
| 22. | K_K01 | X | | | X | | | | |
| 23. | K_K02 | | | | X | | | | |
| 24. | K_K03 | | | | X | | | | |
| 25. | K_K07 | | | | X | | | | |

| No. of learning content | | | |
|-------------------------|---|-----------------|---|
| item | Description of learning content | Number of hours | References to learning outcomes for the module |
| | workshops and seminars | | |
| TK 01 | <p>Prophylaxis of malocclusion. Prophylactic appliances - principle of operation, types, construction. Mechanical removable appliances - principle of operation, construction (retention elements, elements being the source of force, additional elements), performance. Types of orthodontic screws. Removable appliances</p> <p>Non-elastic functional appliances - principle of operation, structural bite, construction, application.</p> <p>Elastic functional appliances - principle of operation, structural bite, construction, application. Double plates for mandibular advancement. Fixed functional appliances.</p> <p>Biomechanics and physiology of teeth movement in orthodontic treatment. Fixed thick-arch braces - working principle:, types, design, application</p> <p>Palatal suture appliances.</p> <p>Fixed thin arch braces - principle of operation, construction, application. Materials used (alloys, orthodontic arches). 1-, 2-, and 3-row bends. Phases of treatment with fixed thin-arch brace. Retention in orthodontics. Retention appliances. Selection of appliances in various clinical situations. Other appliances: headgear-extraoral extractor, Delaire mask Microimplants.</p> <p>Interdisciplinary cooperation. Cooperation of an orthodontist with a maxillo-facial surgeon, dental surgeon, prosthodontist, periodontist, laryngologist, speech therapist. Distraction osteogenesis.</p> | 15 | W01, W02, W03, W04, K01 |
| | Practical classes | | |
| TK 02 | <p>Practical application of the acquired theoretical knowledge during clinical exercises with patients.</p> | 55 | W01, W02, W03, W04, U01, U02, U03, U04, U05, U06, U07, U08, U09, U10, U11, U12, U13, U14, U15, U16, U17, K01, K02, K03, K04 |

| Booklist: |
|---|
| Obligatory literature |
| 1. I. Karłowska: Zarys współczesnej ortodoncji. Podręcznik dla studentów i lekarzy stomatologów. Wydawnictwo Lekarskie PZWL, 2001 |
| 2. F. Łabiszewska-Jaruzelska: Ortopedia szczękowa. Zasady i praktyka. Podręcznik dla studentów stomatologii. Wydawnictwo Lekarskie PZWL, 1995. |
| 3. G. Śmiech-Słomkowska, W. Rytłowa: Profilaktyka i wczesne leczenie ortodontyczne. Wybrane Issue: Wydawnictwo Lekarskie PZWL, 1999. |
| 4. Frank Nötzel, Christian Schultz: Kompendium diagnostyki ortodontycznej. Wydawnictwo Czelej, 2004. |
| 5. Emil Witt, Marta-Elisabeth Gehrke, Anna Komorowska: Wykonywanie aparatów zdejmowanych. Podręcznik dla techników, studentów i lekarzy ortodontów. Wydawnictwo Kwintesencja, 1999. |
| Supplementary literature |
| 1. W. Łasinski: Anatomia Głowy dla Stomatologów. Wydawnictwo Lekarskie PZWL. |
| 2. T. W. Sadler: Embriologia Lekarska, Wydawnictwo Med. Tour. Press, 1993. |

| Student's workload (balance of ECTS scores) | | | |
|--|------------------------|---------|------|
| (in-class participation; activeness, produce a report, etc.) | Student's workload [h] | | |
| | Tutor | Student | Mean |
| Contact hours with the tutor | 70 | | |
| Time spent on preparing to Practical classes/seminars | 10 | | |
| Time spent on reading recommended literature | 10 | | |
| Time spent on writing report on Laboratory/practical classes/making project/paper etc. | | | |
| Time spent on preparing to Colloquium/short test | | | |
| Time spent on preparing to exam | | | |
| Other | | | |
| Student's workload in total | 90 | | |
| ECTS credits for the module/subject | 4 | | |
| Notes | | | |
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* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – practical classes report, incl. discussion on results O –

student's active participation and attitude assessment

SL – laboratory report

SP – case study

PS - assessment of student's ability to work independently

W – entry test PM – multimedial presentation

other...