



Pomorski Uniwersytet Medyczny w Szczecinie
SYLLABUS of the MODULE
(SUBJECT)

General information

Module name: Orthodontics	
Module type	Obligatory
Faculty PMU	Medicine and Dentistry (WLS)
Major	Medical and Dentistry (KLD)
Specialty	n.a.
Level of study	Long-cycle studies
Form 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)
Department's/Clinic's/Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-lekarsko-stomatologiczny/zaklad-ortodoncji
Language	Polish/English

Detailed information

Module/subject 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 learning outcomes for the module (subject)			
No.	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 the principles 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	
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	
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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

No .	Symbol (referring to) Assumed Learning Outcomes	Form of didactic classes							
		Lecture	Seminar	Practical	Clinical classes	others ..
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				

Learning content			
No.	Description of learning content	Number of hours	Referring 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 braces</p> <p>Non-elastic functional appliances - principle of operation, structural bite, construction, application.</p> <p>Flexible 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-bar braces - the principle of operation, types, construction, application. 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.</p> <p>Retention appliances. Selection of appliances in various clinical situations. Other appliances: headgear- extraction extraoral, 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	Practical application of the acquired theoretical knowledge during clinical exercises with patients	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
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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 zagadnienia. 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 credits)			
Form of student's activity (in-class participation; activeness, produce a report, etc.)	Student's workload [h]		
	Tutor	Student	Average
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			

* 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
M – multimedial presentation
and other