



Pomorski Uniwersytet Medyczny w Szczecinie

SYLLABUS of the MODULE (SUBJECT)

General information

Module name: Orthodontics	
Module type	compulsory
Faculty PMU	Medicine and Dentistry (WLS)
Major	Medical and Dentistry (KLD)
Specialty	n.a.
Level of study	long-cycle)
Form of study	full-time/part-time
Year, semester of studies e.g. Year 1, semester (I and II)	Year 3 ,semester VI
ECTS credits (incl. semester breakdown)	2 ECTS
Type/s of training	Lectures-10h seminars-10h practical classes-25h Total – 45h
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 Agata Budzyńska (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 malocclusion ability to perform selected treatments in the scope of prophylaxis and early orthodontics treatment, knowledge of techniques for treating malocclusion with contemporary methods using modern tools and equipment.
Prerequisite /essential requirements	Knowledge	Knowledge, skills and competences at the level of the completion of II nd year of studies in the medical and dental major.
	Skills	
	Competences	

Description of learning outcomes for the module (subject)			
No.	Student, who has passed the (subject) knows /is able to /can:	Symbol (referring to) Assumed Learning Outcomes	Means of verification of learning outcomes*
W01	knows the occlusion norms at different stages of individual development and deviations from norms	K_F.W01	Continuous assessment in practical classes/practical skills assessment Thematic oral seminars
W02	knows and understands the mechanisms leading to organ and systemic pathologies (including infectious, autoimmune and immunodeficiency diseases, metabolic and genetic)	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	know the rules of construction and operation of removable and fixed orthodontic appliances	K_F.W20	
U01	takes medical history with a 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, prescribes treatment confirmed by patient's free consent	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	
U09	knows the rules of conduct in case 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 or treatment	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		X				
2.	K_F.W02	X	X		X				
3.	K_F.W03	X	X		X				
4.	K_F.W20	X	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		X				
10.	K_F.U07		X		X				
11.	K_F.U08		X		X				
12.	K_F.U09		X		X				
13.	K_F.U11		X		X				
14.	K_F.U13				X				
15.	K_F.U14		X		X				
16.	K_F.U15		X		X				
17.	K_F.U18		X		X				
18.	K_F.U21		X		X				
19.	K_F.U22				X				
20.	K_F.U23				X				
21.	K_F.U24				X				
22.	K_K01	X	X		X				
23.	K_K02		X		X				
24.	K_K03		X		X				
25.	K_K07		X		X				

Learning content			
No.	Description of learning content	Number of hours	Referring to learning outcomes for the module
	Lectures		
TK 01	<p>Impressions and models. Masses and impression trays. Types of plaster and orthodontic models. Articulators. Determination of occlusal plane. Etiology of malocclusion. General and local factors (dysfunctions, parafunctions, consequences of caries disease and trauma). Clinical examination of the patient. Analysis of facial features.</p> <p>Functional examination of the masticatory organ. Functional tests. Analysis of diagnostic models. Metric analysis of arch shape. Analysis of arch symmetry. Mutual analysis of models. Measuring instruments used in model analysis. Indicators and measuring instruments.</p> <p>Diagnosis of malocclusion. Sagittal, vertical, transverse malocclusion. Dental abnormalities. Radiological examinations.</p> <p>Analysis of pantomograms.1 Evaluation of bone and dental age. Cephalometry. Principles of taking cephalometry pictures. Points and reference lines. Angles and segments. Selected cephalometric analyses.</p>	10	W01, W02, W03, W04, K01
	Seminars		
TK 02	<p>Impressions and models - making, features of a correct impression and model. Masses and impression trays. Types of plaster and orthodontic models. Principles of cutting off bases Articulators - types of articulators, determining the occlusal plane, embedding models in an articulator. Set-up. Etiology of malocclusion. General and local factors (dysfunctions, parafunctions, consequences of caries disease and trauma). Clinical examination of the patient. Family and personal history Extraoral examination (analysis of facial features en face and in profile, points, planes, biometric field). Intraoral examination. Functional examination of the masticatory organ. Functional tests Analysis of diagnostic models. Metric analysis of arch shape. Analysis of arch symmetry. Mutual analysis of models (Angle's classes, canine classes, overbite, overjet, disorders in relation to spatial planes) Measuring instruments used in model analysis. Indices (Moyers, Droschl, Tonn, Pont, Bolton, Littl, Izard, Mastalerz, segmental analysis of permanent dentition according to Lundström) Measuring instruments</p> <p>Diagnosis of malocclusion. Sagittal, vertical, transverse malocclusion. Dental abnormalities. Radiological examinations Analysis of pantomograms.1 Evaluation of bone age (based on the analysis of hand and wrist radiographs and telerentgenograms) and dental age (clinical and radiological methods) Cephalometric analysis according to Segner and Hasund Points and reference lines. Angles and segments. Classification of a face type. Assessment of sagital and vertical harmony.</p>	10	W01, W02, W03, W04, U05, U06, U07, U08, U09, U11, U12, U13, U14, K01, K02, K03, K04
	Clinical		

TK 03	Practical application of the acquired theoretical knowledge during clinical exercises with patients	25	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. Emil Witt, Marta-Elisabeth Gehrke, Anna Komorowska: Wykonywanie aparatów zdejmowanych. Podręcznik dla techników, studentów i lekarzy ortodontów. Wydawnictwo Kwintesencja, 1999.			
Literatura uzupełniająca			
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	45		
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.	0		
Time spent on preparing to colloquium/short test	5		
Time spent on preparing to exam			
Other			
Student's workload in total	70		
ECTS credits for the module/subject	2		
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

RZĆ – 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
and other