



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT) General Information

Module title: Ergonomics/Health and safety at work	
Module type	<u>Obligatory</u> /Facultative (wybrać)
Faculty PMU	Faculty of Medicine and Dentistry
Major	Dentistry
Level of study	long-cycle (S2J)
Mode of study	full-time studies
Year of studies, semester	Year I, semester 2
ECTS credits (incl. semester breakdown)	3
Type/s of training	lectures 2 h/seminars 16 h/ practical/ 12h
Form of assessment*	<input type="checkbox"/> graded assessment: <ul style="list-style-type: none"> <input type="checkbox"/> descriptive <input type="checkbox"/> test <input type="checkbox"/> practical <input type="checkbox"/> oral <input type="checkbox"/> non-graded assessment <input checked="" type="checkbox"/> final examination <ul style="list-style-type: none"> <input type="checkbox"/> descriptive <input checked="" type="checkbox"/> test <input checked="" type="checkbox"/> practical <input type="checkbox"/> oral
Head of the Department/ Clinic, Unit	Prof. dr hab. n. med. Mariusz Lipski
Tutor responsible for the module	Prof. dr hab. n. med. Mariusz Lipski fantom@pum.edu.pl 91-466-1630
Department's/ Clinic's/ Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-medycyny-i-stomatologii/katedra-i-zaklad-stomatologii-zachowawczej-przedklinicznej-i-endodoncji-przedklinicznej
Language	English

* replace ☐ into ☒ where applicable

Detailed information

Module objectives		The aim of module is to develop an understanding of ergonomics as it relates to proper positioning of the operator, patient and equipment in the dental office, identify ergonomic hazards or work related musculoskeletal disorders related to improper operator and patient positioning - methods of prevention. The student will know the sources of stress and fatigue in dental practice - how to deal with stress.
Prerequisite /essential requirements	Knowledge	The student knows human anatomy and bases for biology, chemistry and physics; knows dental materials and instruments
	Skills	The student can recognize the various types of dental instruments
	Competences	Habit of self-education; co-operate with team members

Description of the learning outcomes for the subject /module

No. of learning outcome	Student, who has passed the (subject) knows /is able to /can:	SYMBOL (referring the standards)	Method of verification of learning outcomes*
W01	knows and understands etiology of occupational diseases, inclusive ones connected with dental work	G.W13.	assessed on classes test exam
W02	knows and understands ergonomic rules of performing dental procedures and organization of work in dental office	G.W18.	assessed on classes test exam
W03	knows and understands rules of occupational health and safety in dentistry	G.W19.	assessed on classes test exam
W04	knows and understands sources of stress and methods for elimination thereof	G.W21.	assessed on classes test exam
W05	knows and understands rules of statics and biomechanics regarding human body	B.W7.	assessed on classes test exam
W06	knows and understands principles of operation of dental equipment	B.W13.	assessed on classes test exam
U01	is able to arrange and run his/her own dental office	G.U10.	assessed on classes test exam
U02	can work in team and manage team in dental office	G.U11.	assessed on classes test exam

U03	is able to identify hazardous factors in place of work, residence and study	G.U12.	assessed on classes test exam
U04	is able to confirm or preclude relationship between environmental factors and etiology of disease inclusive of occupational disease	G.U14.	assessed on classes test exam
U05	is able to work according to ergonomic rules of practicing	G.U20.	assessed on classes test exam
U06	is able to follow sanitary-epidemiological regulations and health and safety regulations at work	G.U21.	assessed on classes test exam
U07	is able to use physical processes in dental practice	B.U3.	assessed on classes test exam
K01	is ready to establish and maintain deep and respectful contact with the patient as well as to show understanding for ideological and cultural differences	K.1.	assessed on classes
K02	is ready to be guided by the patient wellbeing	K.2.	assessed on classes
K03	is ready to notice and recognize own limitations, make self-assessment of educational deficits and needs	K.5.	assessed on classes
K04	is ready to assume responsibility related to decisions taken as a part of professional activity, also in terms of own safety and the safety of others	K.11.	assessed on classes

Table presenting **LEARNING OUTCOMES** in relation to the form of classes

No. of learning outcome	Learning outcomes	Type of training						
		Lecture	Seminar	Practical	Clinical classes	Simulations	E-learning	Other...
W01	knows and understands etiology of occupational diseases, inclusive ones connected with dental work		X			X		
W02	knows and understands ergonomic rules of performing dental procedures and organization of work in dental office		X			X		
W03	knows and understands rules of occupational health and safety in dentistry		X			X		
W04	knows and understands sources of stress and methods for elimination thereof	X	X			X		

W05	knows and understands rules of statics and biomechanics regarding human body	X	X			X		
W06	knows and understands principles of operation of dental equipment	X				X		
U01	is able to arrange and run his/her own dental office		X			X		
U02	can work in team and manage team in dental office	X	X			X		
U03	is able to identify hazardous factors in place of work, residence and study		X			X		
U04	is able to confirm or preclude relationship between environmental factors and etiology of disease inclusive of occupational disease		X			X		
U05	is able to work according to ergonomic rules of practicing	X	X			X		
U06	is able to follow sanitary-epidemiological regulations and health and safety regulations at work		X					
U07	is able to use physical processes in dental practice		X			X		
K01	is ready to establish and maintain deep and respectful contact with the patient as well as to show understanding for ideological and cultural differences					X		
K02	is ready to be guided by the patient wellbeing					X		
K03	is ready to notice and recognize own limitations, make self-assessment of educational deficits and needs					X		
K04	is ready to assume responsibility related to decisions taken as a part of professional activity, also in terms of own safety and the safety of others					X		

Table presenting TEACHING PROGRAMME			
No. of a teaching programme	Teaching programme	No. of hours	References to learning outcomes
Summer semester			
Lectures			
TK01	The two-handed dentistry, so-called solo technique, in supine position of the patient. The four-handed dentistry in supine position of the patient. Instrument grasps used by the operator and the assistant for holding the instruments and instruments' transfer. Sign language. The six-handed dentistry.	2	W04, W05, W06
Seminars			
TK01	Introduction to the ergonomics. Basic concepts in ergonomics. Characteristics of the dentist workplace in terms of ergonomics – teamwork in dental office	2	W04

TK02	Health risks in dentistry	3	W01, W02 U04, U05
TK03	Sanitation procedures	3	W03 U03, U06, U07
TK04	Isolation of dental operating field. Rubber dam. Terms and conditions of the two-handed dentistry, so-called solo technique, in supine position of the patient – advantages and limitations.	4	W04, W05 U01, U02, U05
TK05	The specificity of endodontic treatment in patient in supine position. The ergonomic aspects in the treatment of geriatric patients. Terms and conditions of the four-handed dentistry in supine position of the patient – advantages and limitations. The six-handed dentistry – advantages and limitations	4	W04, W05 U02, U05
Simulations			
TK01	OSH training. Work planning – preparation of the workplace. Dental equipment and instrumentation.	2	W01, W02, W03, W04, W06 U01, U05 K01, K02, K03, K04
TK02	Rubber dam placement. Methods.	4	W04 U05 K01, K02, K03, K04
TK03	The two-handed dentistry, so-called solo technique, in supine position of the patient.	2	W05 U02, U05 K01, K02, K03, K04
TK04	The four-handed dentistry in supine position of the patient. Dental team work zone's, dental instruments marking.	1	W05 U02, U05 K01, K02, K03, K04
TK05	Instrument grasps used by the operator and the assistant for holding the instruments and instruments' transfer. Sign language. The six-handed dentistry.	2	W05, W06 U02, U05 K01, K02, K03, K04
TK06	Stress and physical fatigue. Relaxation exercises.	1	U03, U04, U05, U07 K01, K02, K03, K04
Booklist			
Obligatory literature:			
1. Valachi B.: Practice Dentistry Pain-Free: Evidence-based Ergonomic Strategies to Prevent Pain and Extend Your Career			
2. Ladley Finkbeiner B. : Four-Handed Dentistry: A Handbook of Clinical Application and Ergonomic Concepts			
3. Murphy D.C.: Ergonomics and Dental Care Worker			
Student's workload			
Form of student's activity (in-class participation; activeness, produce a report, etc.)		Student's workload [h]	
		Tutor	
Contact hours with the tutor		30	
Time spent on preparation to seminars/ practical classess		30	

Time spent on reading recommended literature	30
Time spent on writing report/making project	
Time spent on preparing to colloquium/ entry test	15
Time spent on preparing to exam	30
Other	
Student's workload in total	135
ECTS credits for the subject (in total)	3
Remarks	

* 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 – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

other...