Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT)
General Information

Module title: The influence of hormonal imbalance on human health	
Module type	Elective
Faculty PMU	Faculty of Medicine and Dentistry
Major	Medicine
Level of study	long-cycle Master's degree studies
Mode of study	full-time studies provided in English Language
Year of studies, semester	Year II, semester I and II
ECTS credits (incl. semester breakdown)	0.5 / 0.5
Type/s of training	Lectures, 20 h
Form of assessment[1]	Credit with a grade: X test
Head of the Department/ Clinic, Unit	Barbara Wiszniewska Professor PhD, Dsc barbara.wiszniewska@pum.edu.pl
Tutor responsible for the module	Sylwia Rzeszotek PhD sylwia.rzeszotek@pum.edu.pl 91 466 16 25
Department's/ Clinic's/ Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-lekarski/katedra-i-zaklad-histologii-i-embriologii
Language	English

1 replace ☐ into ☒ where applicable

Detailed information

Module objectives		The main purpose of the elective subject " The influence of hormonal imbalance on human health " is the presentation and analysis of the latest scientific reports on the hormonal balance and human well-being. This knowledge will complement the knowledge contained in academic textbooks. Classes will be an inspiration for self-improvement and open scientific discussion. An additional goal is to show the Student that modern histology and embryology is closely related to other medical sciences and is a valuable complement to them. The Student will become familiar with planning and carrying out scientific research, the interpretation of results, and will learn how to draw conclusions. With exploring new scientific reports, the student should start to be able to notice and recognize his own limitations and self-assess educational deficits and needs.
Prerequisite /essential requirements	Knowledge	Understanding the basics of biological and pharmacological mechanisms that bind together human histology and physiology.
	Skills	Search and analysis of current publications in the field of medical sciences. Basics of simple research planning. Using objective sources of information. .
	Competences	The habit of self-education, the ability to discuss. Noticing the need for cooperation in international research teams.

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 Polish and English anatomical, histological and embryological terminology	A.W1.	O, ZAO
W02	Knows embryo development phases, structure and function of fetal membranes and placenta, knows development phases of organs	A.W6.	
W03	Methods of communication between cells and between a cell and the extracellular matrix and signaling pathways within a cell, as well as examples of disorders in these processes leading to the development of cancer and other diseases;	B.W17.	
W04	The basic range of issues of stem cells and their use in medicine;	B.W19.	
W05	Relationship between factors disturbing the balance of biological processes and physiological and pathophysiological changes;	B.W25	
W06	Principles of conducting scientific, observational and experimental research as well as in vitro research for the development of medicine.	B.W29	
W07	Consequences of exposure of the human body to various chemical and biological factors and the principles of prevention;	C.W15	
W08	Genetic basics of donor and recipient selection and	C.W25	

	basics of transplant immunology.		O, ZAO
W09	Basic mechanisms of cell and tissue damage.	C.W27.	
W10	The influence of oxidative stress on cells and its importance in the pathogenesis of diseases and the aging process;	C.W47	
W11	Features of modern medicine and its most important discoveries;	D.W21	
U01	Use both oral and written anatomical, histological and embryological names.	A.U5	
U02	Use databases, including the Internet, and search for the necessary information using the available tools;	B.U10.	
U04	Evaluate environmental hazards and use basic methods allowing to detect the presence of harmful factors (biological and chemical) in the biosphere;	C.U6.	
U05	Critically analyze medical literature, including in English, and draw conclusions.	D.U17	

Table presenting LEARNING OUTCOMES in relation to the form of classes

No. of learning outcome	Learning outcomes	Type of training						
		Lecture	Seminar	Practical classes	Clinical classes	Simulations	E-learning	Other…
W01	A.W.1	X						
W02	A.W.6	X						
W03	B.W17	X						
W04	B.W19	X						
W05	B.W25.	X						
W06	B.W29.	X						
W07	C.W15	X						
W08	C.W25.	X						
W09	C.W27.	X						
W10	C.W47	X						
W11	D.W21	X						

U01	A.U5	X						
U02	B.U10.	X						
U04	C.U6.	X						
U05	D.U17	X						

Table presenting TEACHING PROGRAMME			
No. of a teaching programme	**Teaching programme**	**No. of hours**	**References to learning outcomes**
Winter semester			
	Lectures		
TK01	*Endocrine disruptors* - Czynniki środowiskowe o działaniu hormonalnym.	2	A.W.1, B.W17., B.W25., C.W15, C.W27., D.W21, A.U5, B.U13., C.U6., D.U17.
TK02	Immunosuppressive drugs - not so black as it is painted.	2	A.W.1, B.W25., B.W29., C.W25., C.W27., D.W21, A.U5.
TK03	Estrogen/androgen imbalance as defects of the development and function of male reproductive system.	2	A.W.1, A.W.6, B.W17., B.W25., D.W21, A.U5.
TK04	Are estrogens able to control the metabolism of male bone tissue?	2	A.W.1, B.W17., B.W25., B.W29., D.W21, A.U5.
TK05	Phytoestrogens- pros and cons	2	A.W.1, B.W17., B.W25., B.W29., C.W15, C.W47, D.W21, A.U5, D.U17.
Summer semester			
TK06	The dark side of the artificial light.	2	A.W.1, B.W17., B.W19, B.W25., B.W29., C.W15., C.W27., C.W47., D.W21., A.U5., B.U10., D.U17.
TK07	The influence of imbalance between testosterone (T) and dihydrotestosterone (DHT) on the morphology and function of male gonad.	2	A.W.1, B.W17., B.W25., B.W29., C.W15, C.W27., D.W21, A.U5.
TK08	Human health effects of dioxins.	2	A.W.1, A.W.6, B.W17., B.W25., B.W29., C.W15, C.W27., D.W21, A.U5, C.U6.,
TK09	Hormone-dependent function of the liver and its diseases.	2	A.W.1, B.W17., B.W25., C.W27., D.W21., A.U5.
TK10	Developmental disorders with environmental aspects.	2	A.W.1, A.W.6, B.W17., B.W25.,

			B.W29., C.W15, C.W27., D.W21, A.U5, C.U6.

Booklist
Obligatory literature:
1. Materials provided by the teacher.
Supplementary literature:
1. Publications discussed during the classes.

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	20
Time spent on preparation to seminars/ practical classess	10
Time spent on reading recommended literature	5
Time spent on writing report/making project	0
Time spent on preparing to colloqium/ entry test	10
Time spent on preparing to exam	0
Other …..	0
Student's workload in total	45
ECTS credits for the subject (in total)	0.5 / 0.5
Remarks	

* Selected examples of methods of assessment:
EP – written examination
EU – oral examination
ET – test examination
EPR – practical examination
K – colloqium
R – report
S – practical skills assessment
RZĆ – 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…