



# Pomeranian Medical University in Szczecin

## SYLLABUS of the MODULE (SUBJECT) General Information

<b>Module title</b> <b>Elective classes: In search of balance, or about disorders of hormonal homeostasis. 2025/2026.</b>	
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)	1 (0.5/0.5)
Type/s of training	Lectures, 20 h (10/10)
Form of assessment*	XCredit with a grade: X test
Head of the Department / Clinic, Unit	Assoc. Prof. Aleksandra Wilk, PhD
Tutor responsible for the module	Sylwia Rzeszotek PhD sylwia.rzeszotek@pum.edu.pl 91 466 16 25
Department's/ Clinic's/ Unit's website	<a href="https://www.pum.edu.pl/studenci/informacje_z_jednostek/wm/katedra_i_zaklad_histologii_i_embriologii/">https://www.pum.edu.pl/studenci/informacje_z_jednostek/wm/katedra_i_zaklad_histologii_i_embriologii/</a>
Language	English

\* replace  into  where applicable

## Detailed information

<b>Module objectives</b>		<p>The main purpose of the elective subject "In search of balance, or about disorders of hormonal homeostasis" 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.</p> <p>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.</p> <p>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.</p>
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 and understands the structure of the human body in a topographic and functional approach, including topographic relations between individual organs, including their nomenclature anatomical, histological and embryological;	A.W1	O, ZAO
W02	Knows development stages of the human embryo, structure and function of fetal membranes and placenta, development stages of individual organs and the impact of harmful factors on development embryo and fetus (teratogenic).	A.W4	
W03	Ways of communication between cells and between the cell and the matrix extracellular and signal transduction pathways in the cell, as well examples of disorders in these processes leading to the development of cancer and others diseases;	B.W16	
W04	functions and applications of stem cells in medicine;	B.W18	
W05	consequences of exposure of the human body to chemical and physical factors and principles of prevention;	C.W13	
W06	genetic basis of donor and recipient selection and basics of immunology transplantation;	C.W22	
W07	the impact of oxidative stress on cells and its importance in the pathogenesis of diseases and in the processes occurring during the aging of the body;	C.W38	

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.W1	X						
W02	A.W4	X						
W03	B.W16	X						
W04	B.W18	X						
W05	C.W13	X						
W06	C.W22	X						
W07	C.W38	X						

Table presenting TEACHING PROGRAMME			
No. of a teaching programme	Teaching programme	No. of hours	References to learning outcomes
<b>Winter semester</b>			
	<b>Lectures</b>	<b>10h</b>	
TK01	Endocrine disruptors – Environmental factors with hormonal activity.	2	A.W1, A.W4, B.W16, C.W13.
TK02	Developmental disorders in the context of environmental interactions.	2	A.W1., B.W16.
TK03	Estrogen/androgen imbalance as defects of the development and function of male reproductive system.	2	A.W.1., B.W16.
TK04	Are estrogens able to control the metabolism of male bone tissue?	2	A.W.1, B.W16.
TK05	Phytoestrogens- pros and cons.	2	A.W.1, B.W16, C.W38.
<b>Summer semester</b>			
	<b>Lectures</b>	<b>10h</b>	
TK01	The dark side of the artificial light.	2	A.W.1, B.W18, C.W13.
TK02	The influence of imbalance between testosterone (T) and dihydrotestosterone (DHT) on the morphology and function of male gonad.	2	A.W.1, A.W4, B.W16, C.W38.
TK03	Your second brain.	2	A.W1, A.W4, C.W13.
TK04	Hormone-dependent function of the liver and its diseases.	2	A.W.1, C.W38.
TK05	Developmental disorders with environmental aspects.	2	A.W.1, A.W4, C.W13.

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

<b>Student's workload</b>	
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 classes	0
Time spent on reading recommended literature	5
Time spent on writing report/making project	0
Time spent on preparing to colloquium/ entry test	5
Time spent on preparing to exam	0
Other .....	0
Student's workload in total	30
<b>ECTS credits for the subject (in total)</b>	<b>1 (0.5/0.5)</b>

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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 – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

other...