

Pomorski Uniwersytet Medyczny w Szczecinie

COURSE SYLLABUS

General information

Course title: Pathophysiology	
Type of course	Mandatory
Name of the Faculty of PUM	Faculty of Medicine and Dentistry
Field of study	Medicine
Specialization	-
Level of study	long-term studies
Form of study	Full-time studies
Year of study /semester	Year III / semester 5, 6
Number of allocated ECTS credits	9
Forms of teaching (number of hours)	Lectures (8h) / seminars (32h) / practical classes (60h)
Ways of verifying and assessing learning outcomes ¹	<input type="checkbox"/> graded credit: <div><input type="checkbox"/> descriptive <input type="checkbox"/> test <input type="checkbox"/> practical <input type="checkbox"/> oral</div> <input type="checkbox"/> credit without grade <input checked="" type="checkbox"/> final exam: <div><input type="checkbox"/> descriptive</div>

¹ mark as appropriate, **changing** ☐ to ☒

	<input checked="" type="checkbox"/> test <input type="checkbox"/> practical <input type="checkbox"/> oral
Head of Unit	Prof. dr hab. n. med. Bogusław Machaliński,
Teaching assistant professor or person responsible for the course	Dr n. med. Elżbieta Dąbkowska, dabkowskaela@wp.pl
Name and contact details of unit	Department of Physiopathology, Division of General Pathology Al. Powstańców Wlkp. 72 70-111 Szczecin 91 466 1546
Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-medycyny-i-stomatologii/zaklad-patologii-ogolnej
Language of instruction	Polish

Detailed information

Course objectives		Learning objectives: 1. To impart knowledge about the functioning of organs, body systems in the state of disease, 2. Define the condition of the disease describe its determinants, regulatory and compensatory mechanisms 3. To provide knowledge to understand the aetiology, pathogenesis and symptoms of disease in specific organs and systems 4. To use the knowledge gained to discuss specific disease cases in terms of aetiology, pathogenesis and observed symptoms, critical analysis
Initial requirements	Knowledge	Knowledge of physiological aspects of human body functioning, knowledge of biochemical aspects of human body functioning, knowledge of basic physiological and biochemical concepts
	Skills	Ability to interpret numerical data on basic physiological and biochemical variables, uses internet databases
	Social competences	A student has the habit and ability for self-education, ability to work in a team, acceptance of current ethical standards

LEARNING OUTCOMES			
Number of learning outcome	A student who has completed the COURSE knows/can:	SYMBOL (reference to) learning outcomes for the field of study	Means of verifying the effects of learning outcomes*
W01	He/she is able to give the definition and pathophysiology of shock, with particular emphasis on differentiating the causes of shock, and multiple organ failure	K_C.W28	K, ET
W02	He/she is able to describe the consequences of developing pathological changes on topographically adjacent organs	K_C.W31	K, ET
W03	He/she is able to list external and internal, modifiable and non-modifiable pathogens	K_C.W32	K, ET
W04	He/she is able to list the clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water-electrolyte and acid-base metabolism	K_C.W33	K, ET
U01	He/she is able to relate images of tissue and organ damage to clinical signs of disease, history and results of laboratory determinations	K_C.U11	K, ET
U02	He/she is able to analyse the reactive, defensive and adaptive phenomena and dysregulation caused by the aetiological agent	K_C.U12	K, ET
K01	He/she is able to demonstrate the habit of self-education, understands the need for lifelong learning, is able to inspire and organise the learning process of others	K_K03	O
K02	He/she is able to demonstrate an attitude that promotes health and physical classes	K_K07	O

Table of learning outcomes in relation to the form of classes							
Number of learning outcome	Learning outcomes	Form of the classes					
		Lecture	Seminar	Practical classes	Clinical practical classes	Simulations	E-learning Other forms
1.	W01	x	x				
2.	W02	x	x				
3.	W03	x	x				
4.	W04	x	x				
5.	U01			x			
6.	U02			x			
7.	K01		x	x			
8.	K02		x	x			

TABLE OF CURRICULUM CONTENTS			
curriculum content	Curriculum content	Number of hours	Reference to the learning outcomes for the COURSE
Semester 5 (winter)			
Lectures (8h)			
TK01	Cell cycle	1	W01, W02, W03, W04
TK02	Apoptosis	1	W01, W02, W03, W04
TK03	Adjuvant cell therapy: selected issues	2	W01, W02, W03, W04
TK04	Low-protein diet		W01, W02, W03, W04
TK05	Endothelium: cellular and humoral aspects	2	W01, W02, W03, W04
TK06	Primary hypertension	2	W01, W02, W03, W04
Seminars (12h)			

TK01	Pathophysiology of protein metabolism and purine bases	3	W01, W02, W03, W04, K01, K02
TK02	Pathophysiology of carbohydrate metabolism	6	W01, W02, W03, W04, K01, K02
TK03	Inflammations	6	W01, W02, W03, W04, K01, K02
Practical classes (28h):			
TK01	Glucose tolerance test	3	U01, U02, K01, K02
TK02	Pathophysiology of lipid metabolism	6	U01, U02, K01, K02
TK03	Pathophysiology of the cardiovascular system	12	U01, U02, K01, K02
TK04	Pathophysiology of secondary hypertension	3	U01, U02, K01, K02
TK05	Flow cytometer	2	U01, U02, K01, K02
TK06	Confocal microscope	2	U01, U02, K01, K02
Semester 6 (summer)			
Seminars (12h):			
TK01	Pathophysiology of the urinary system	6	W01, W02, W03, W04, K01, K02
TK02	Pathophysiology of the digestive system	6	W01, W02, W03, W04, K01, K02
Practical classes (30h):			
TK01	Pathophysiology of the digestive system	6	U01, U02, K01, K02
TK02	Pathophysiology of the respiratory system	6	U01, U02, K01, K02
TK03	Pathophysiology of pain. Hypothermia and hyperthermia	6	U01, U02, K01, K02
TK04	Pathophysiology of the nervous system	6	U01, U02, K01, K02
TK05	Pathophysiology of the endocrine system	6	U01, U02, K01, K02
TK06			U01, U02, K01, K02

Recommended literature:
Basic literature:
1. Patofizjologia. Podręcznik dla studentów medycyny. Tom 1 i 2. Redakcja: Sławomir Maśliński, Jan Ryżewski
2. Interna Szczeklika 2019 - Podręcznik chorób wewnętrznych. Redakcja: Piotr Gajewski,

Student workload	
Form of student workload (course attendance, student's involvement, report preparation, etc.)	Student workload [h] In the teacher's assessment (opinion)
Contact hours with the teacher	100
Preparation for practical classes/seminar	30
Reading of designated literature	30
Writing a lab/practical classes report/preparing a project/reference paper, etc.	-
Preparation for the test/colloquium	35
Preparation for the examination	40
Other	-
Total student workload	225
ECTS credits	9
Notes	

*Example ways to verify learning outcomes:

EP - written exam

EU - oral test

ET - test exam

EPR - practical test

K - colloquium

R - paper

S - testing of practical skills

RZĆ - report on practical classes with discussion of results

O - assessment of student's involvement and attitude

SL - Laboratory report

SP - case study

PS - assessment of ability to work independently

W - a short test before the beginning of class

PM - multimedia presentation

and other