Załącznik nr 5 do zarządzenia nr 189/2025

COURSE SPECIFICATION

Course code: 0912-7LEK-C-Pp

Course title in Polish: Patofizjologia
Course title in English: Pathophysiology

1. Placement of the course within the study programme

1.1. Field of study	Medicine
1.2. Mode of study	Full-time
1.3. Level of study	Uniform Master's study
1.4. Profile of study	General academic
1.5. Course specification author	Prof. dr hab. n. med. Anna Polewczyk
1.6. Contact	anna.polewczyk@ujk.edu.pl

2. Generał characteristics of the course

2.1. Language of instruction	English
2.2. Entry requirements	Anatomy, Histology, Physiology

3. Detailed characteristics of the course

3.1. Type of classes	LECTURE 40 (including 10 hours of e-learning), CLASSES 40
3.2. Place of course delivery	Courses in the teaching rooms of UJK
3.3. Form of assessment	LECTURE – E, CLASSES- Zo (credit with grade)
3.4. Teaching methods	Practical classes, conversational lecture, discussion
3.5.a. Basic reading list	Understanding Pathophysiology, 8th Edition Sue E. Huether,Kathryn L. McCance,Valentina L. Brashers Elserview 02/2025
3.5.b. Supplementary reading list	Ross & Wilson Pathophysiology Allison Grant Elsevier Health Sciences, październik 2023

4. Objectives, content and learning outcomes

4.1. Course objectives (taking into account the form of classes)

Lectures

- **CO1.** Explaining functional changes in the body during disease
- **CO2.** Discussing the mechanisms of disease development and the systemic consequences resulting from the disease
- **CO3.** Familiarizing students with basic terms used in pathophysiology
- **CO4.** Familiarization with the basics of etiopathogenesis of diseases of individual systems and the pathomechanism of consequences of disturbed function of organs and systems (e-learning).

Classes

- **CO1.** Explaining functional changes in the body during disease

- **CO2.** Discussing the mechanisms of disease development and the systemic consequences resulting from the disease
- **CO3.** Familiarizing students with basic terms used in pathophysiology
- **CO4.** Familiarizing students with the basics of etiopathogenesis of diseases of individual systems and the pathomechanism of consequences of impaired function of organs and systems
- **CO5.** Practical assessment of pathophysiological phenomena occurring in individual organs and systems with the ability to link individual pathomechanisms accompanying various diseases

4.2. Course content (taking into count the form of classes)

Lectures 1st semester

1. Diseases of the heart and blood vessels: atherosclerosis, ischaemic heart disease, acute coronary syndromes, arrhythmia 5h
2. Pathophysiology of inflammatory heart diseases 2h
3. Pathophysiology of diseases of respiratory system 5h
4. Pathophysiology of nervous system 3h

(including classes conducted with the use of distance learning methods and techniques)

1. Valvular heart diseases, hypertension, pulmonary hypertension, cardiomyopathies, heart failure, oedema pulmonum, cardiogenic shock 5 h

Lectures 2nd semester

1. Pathophysiology of renal diseases 3h
2. Hormonal disorders – disorders of basal function of excretory system and hormonal disorders of hypothalamic – pituitary- adrenal axis and thyroid abnormalities 4h
3. Reproductive pathophysiology - disorders of gender differentiation and genital development, sexual maturation disorders, psychosexual disorders in women and men, pathogenesis of impotence and sex cooling 3h
4. Pathophysiology of hematopoietic system and immunopathology 3h
5. Pathogenesis of the neoplasmatic diseases- 2h

(including classes conducted with the use of distance learning methods and techniques)

1. Pathophysiology of the digestive system: gastroesophageal diseases, stomach and duodenal diseases, intestinal diseases, malabsorption. Disorders of thermoregulation. Pathophysiology of metabolism of carbohydrates, protein and lipids 3h

2. Pathophysiology of selected central and peripheral nervous system diseases 2h

Classes 1st semester

1. Pathophysiology of circulatory system: ischaemic heart disease, acute coronary syndromes, arrhythmia. Pathogenesis of hypertension- 6h

2. Pathophysiology of circulatory system: defects of the heart, heart failure, acute cardiac conditions -3h

3. The pathophysiology of respiratory diseases- 6h

4. The pathophysiology of nervous system diseases 5h

Classes 2nd semester

1. The pathophysiology of the digestive system: gastroesophageal reflux disease, stomach and duodenal disease, intestinal diseases, malabsorption. Disorders of carbohydrate, protein and lipid metabolism 3 h

2. The pathogenesis of excretory system diseases 4 h

3. Water-electrolyte imbalance and the disorders of Acid-Base Balance 4 h

4. Disturbances in the functioning of the endocrine system 4 h

5. The pathophysiology of the hematopoietic system with particular emphasis on hemostasis disorders. Immunopathology 5 h

4.3. Course learning outcomes

Course learning outcomes (code)	Upon completion of the course, the student	Alignment with programme learning outcomes
in the area of knowledge knows and understands:		
W01	Processes occurring during the aging of the body and changes in the functioning of organs related to aging;	B.W21.
W02	The implications of the human body exposure to chemical and physical factors and prevention principles;	C.W13.
W03	Pathogenesis of diseases, including genetic and environmental conditions;	C.W26.
W04	Patomechanism and clinical forms of most common diseases of various systems and organs, metabolic diseases and disorders of water, electrolyte, hormonal and acid-base balance;	C.W27.
W05	The consequences of vitamins or minerals deficiency and their excess in the body;	C.W39.
W06	The consequences of inadequate nutrition, including long-term starvation, taking too large meals and the use of unbalanced diet as well as digestive disorders and malabsorption;	C.W40.
in the area of skills knows how to:		
U01	Make connection between images of tissue, organ damage and clinical symptoms of the disease, medical history and the results of laboratory determinations in order to establish the diagnosis of the most common diseases of adults and children;	C.U7.
in the area of social competences is able to:		
K01	Recognize his/her own limitations and self-evaluate educational deficiencies and needs;	K.S5.
K02	Use reliable information sources;	K.S7.
K03	Conclude on the basis of own surveys and observations;	K.S8.

K04	Introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment;	K.S9.
K05	Give opinions concerning various aspects of professional activity;	K.S10.
K06	Take responsibility for own decisions made during professional activities including own safety and safety of other people.	K.S11.

4.4. Assessment methods for learning outcomes

Assessment method (+/-)

Course learning outcomes (code)	Oral/written/ practical examinaion /other (specify)*	Test*	Project*	In-class activity*	Independent study*	Group work*	Other Observation*

Type of classes

1: / 2:	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...
W01-W06	+	+									+										
U01														+							
K01-K06																			+	+	

Annotation. 1: form of classes; 2: learning outcomes

4.5. Assessment criteria for learning outcomes

Type of classes:

LECTURE (L) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	61%-68% Learning programme content on the basic level, replies chaotic, leading questions necessary.
3,5	69%-76% Learning programme content on the basic level, answers systematized, requires assistance from the teacher.
4,0	77%-84%Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.
4,5	85%-92%The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations
5,0	93%-100% The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.

Type of classes:

CLASSES (C) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	61%-68%Learning programme content on the basic level, replies chaotic, leading questions necessary
3,5	69%-76%Learning programme content on the basic level, answers systematized, requires assistance from the teacher.
4,0	77%-84%Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.
4,5	85%-92%The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations
5,0	93%-100%The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.

5. ECTS credit allocation – student workload

Category	Student workload (full-time mode)	Student workload (part-time mode)
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER (CONTACT HOURS)	80	
Participation in lectures*	40	
Participation in seminars/laboratories*	40	
Other (specify) e.g. classes conducted with the use of distance learning methods and techniques*		
INDEPENDENT STUDY (NON-CONTACT HOURS)	**70**	
Preparation for lectures*	40	
Preparation for seminars/laboratories*	30	
Preparation for examination/test*		
Gathering materials for project, online research*		
Preparation of a multimedia presentation*		
Other (specify)*		
TOTAL HOURS	**150**	
ECTS CREDITS for the course	**6**	

*** delete as appropriate**

Approved for implementation (date and legible signatures of course instructors in the given academic year):

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