

SYLLABUS
concerning the cycle of education 2023-2029

(date range)

1.1. BASIC INFORMATION CONCERNING THIS SUBJECT / MODULE

Subject / Module	Pathophysiology
Course code / module *	Pm/C
Faculty of (name of the leading direction)	Faculty of Medicine, University of Rzeszow
Department Name	Faculty of Medicine, University of Rzeszow
Field of study	medical direction
Level of education	uniform master's studies
Profile	practical
Form of study	stationary / extramural
Year and semester	year III, semester V
Type of course	obligatory
Coordinator	dr n. med. Ewa Kaznowska
First and Last Name of the Teacher	

* - According to the resolutions of the Faculty of Medicine

1.2. Forms of classes, number of hours and ECTS

Lecture	Exercise	Conversation	Laboratory	Seminar	ZP	Practical	Self-learning	Number of points ECTS
30	40	-	-	-	-	-	-	6

1.3. The form of class activities

☒ classes are in the traditional form

☐ classes are implemented using methods and techniques of distance learning

1.4. Examination Forms / module (exam, credit with grade or credit without grade)

2. REQUIREMENTS

Passing courses in anatomy, histology and physiology.

3. OBJECTIVES, OUTCOMES, AND PROGRAM CONTENT USED IN TEACHING METHODS

3.1. Objectives of this course/module

C1	Acquiring knowledge in the field of general pathology in the theoretical and practical form (analysis of the macroscopic image of pathological changes in organs, microscopic exercises and participation in an autopsy study)
C2	Understanding structural and functional changes in cells, tissues and organs in the course of diseases and during treatment.
C3	Shaping the ability to connect disease symptoms with structural changes in cells, tissues and organs.
C4	Learning about various types of pathomorphological tests and the ability to choose pathomorphological diagnostic methods.

3.2 OUTCOMES FOR THE COURSE / MODULE (TO BE COMPLETED BY THE COORDINATOR)

EK (the effect of education)	The content of the learning effect defined for the subject (module)	Reference to directional effects (KEK)
EK_01	knows the pathomorphological nomenclature	C.W25
EK_02	knows the basic mechanisms of cell and tissue damage	C.W26
EK_03	determines the clinical course of specific and non-specific inflammations and describes the processes of tissue and organ regeneration	C.W27
EK_04	knows the definition and pathophysiology of shock, with particular emphasis on the differentiation of causes of shock, and multi-organ failure	C.W28
EK_05	knows the etiology of hemodynamic disorders, back changes and progressive changes	C.W29
EK_06	knows issues in the field of detailed organ pathology, macro and microscopic images and the clinical course of pathomorphological changes in particular organs	C.W30
EK_07	describes the consequences of developing pathological changes for topographically adjacent organs	C.W31
EK_08	lists the external and internal pathogens, modifiable and unmodifiable	C.W32
EK_09	lists clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water and electrolyte and acid-base balance	C.W33
EK_10	uses the antigen - antibody reaction in current modifications and techniques for the diagnosis of infectious, allergic, autoimmune diseases, blood and cancer diseases	C.U8

EK_11	can relate images of tissue and organ damage to the clinical symptoms of the disease, the history and results of laboratory tests	C.U11
EK_12	analyzes the reaction, defense and adaptation phenomena and regulation disturbances caused by the etiological factor	C.U12

3.3 CONTENT CURRICULUM (filled by the coordinator)

A. Lectures

Course contents
Cell damage, cell death, adaptation processes. Tissue inflammation and repair.
Hemodynamic disorders, thrombosis and shock.
Diseases related to the environment and nutrition. General pathology of infectious diseases.
Cancer - introduction to oncological pathology.
Cancers of childhood.
Blood vessels and heart
Hematopoietic and lymphatic system
Lung
Kidney and urinary pathways. Male sexual organs.
Female sexual system and breast.

B. Exercises

Course contents
Cell damage, cell death, adaptation processes. Tissue inflammation and repair.
Hemodynamic disorders, thrombosis and shock.
Diseases related to the environment and nutrition. General pathology of infectious diseases.
Cancer - introduction to oncological pathology.
Cancers of childhood.
Blood vessels and heart
Hematopoietic and lymphatic system
Lung

Kidney and urinary pathways. Male sexual organs.
Female sexual system and breast.

3.4 TEACHING METHODS

Lecture: lecture with multimedia presentation

Exercises: multimedia presentation, demonstration of cases of current histopathological diagnosis, autopsy - confrontation of the detected changes with clinical diagnosis, macroscopic image and microscopic changes.

Student's own work: work with a book

4 METHODS AND EVALUATION CRITERIA

4.1 Methods of verification of learning outcomes

Symbol of effect	Methods of assessment of learning outcomes (Eg.: tests, oral exams, written exams, project reports, observations during classes)	Form of classes
EK_01-EK_06	Written test	Lecture
EK_07-EK_09	Written test	Exercises
EK_10-EK_12	Practical pass	Exercises

4.2 Conditions for completing the course (evaluation criteria)

Lectures:

Written test

Knowledge assessment (EK_01-EK_06):

5.0 - has knowledge of each of the contents of education at the level of 90% -100%

4.5 - has knowledge of each of the content of education at the level of 84% -89%

4.0 - has knowledge of each of the content of education at the level of 77% -83%

3.5 - has knowledge of each of the content of education at the level of 70% -76%

3.0 - has knowledge of each of the content of education at the level of 60% -69%

2.0 - has knowledge of each of the contents of education below 60%

Exercises:

1. Full participation and activity in exercises

2. Partial written credits

Range of ratings: 2.0 - 5.0

Skill assessment (EK_07-EK_12):

5.0 - the student actively participates in the classes, is well prepared, properly prepares the preparation and recognizes pathogens under the microscope

4.5 - the student actively participates in the classes, with a little help from the teacher who properly prepares the preparation and recognizes pathogens under the microscope
4.0 - the student actively participates in classes, with more help from the teacher prepares the preparation and recognizes pathogens under the microscope
3.5 - the student participates in the classes, his scope of preparation does not allow for the overall presentation of the discussed problem, he often makes mistakes when preparing the preparation and misidentifies the pathogens under the microscope
3.0 - the student participates in classes, formulates conclusions requiring correction from the teacher, but commits large errors during the preparation of the preparation and misidentifies the pathogens under the microscope
2.0 - the student passively participates in the classes, the statements are incorrectly substantive, he does not understand the problems, during the preparation of the preparation he commits the erroneous and incorrectly recognizes pathogens under the microscope

5. Total student workload required to achieve the desired result in hours and ECTS credits

Activity	Hours / student work
Hours of classes according to plan with the teacher	70
Preparation for classes	40
Participation in the consultations	2
The time to write a paper / essay	-
Preparation for tests	40
Participation in colloquia	1
Other (e-learning)	-
SUM OF HOURS	148
TOTAL NUMBER OF ECTS	6

6. TRAINING PRACTICES IN THE SUBJECT / MODUL

Number of hours	-
Rules and forms of apprenticeship	-

6. LITERATURE

READING:

1. „Robbins Patologia” – wyd. II polskie pod red. prof. W. Olszewskiego. Urban&Partner, Wrocław 2014.

2. Atlas Histopatologii, „Tajemniczy świat chorych komórek człowieka” - W. Domagała, M. Chosia, E. Urańska. Wydawnictwo Lekarskie PZWL 2006

Additional literature:

1. „Patologia - tom I pod red.: W. Domagała. Polska Akademia Umiejętności, Kraków 2016
2. „Patologia” - tom II, III pod red. J. Stachura, W. Domagała Polska Akademia Umiejętności, Kraków 2009

Acceptance Unit Manager or authorized person