



INTERNATIONAL SCHOOL OF MEDICINE

SYLLABUS

Program:	General medicine
Qualification of the graduate:	General practitioner / Medical doctor
Year:	2023-2024
Semester:	3
Course duration:	18 weeks
Instructor/Assistant/Professor	Name: Akmatova A.A.
Department:	Pathology
Day and Time for consultation:	26.10.23y.-27.10.23y.-28.10.23y.
Classroom:	108, 301, 402
e-mail:	akmatovaasiya@gmail.com
Course Title:	Pathological anatomy, clinical pathological anatomy
Must/Elective:	Must
Credit/Hours:	4
Course Description:	The discipline "Pathological anatomy, clinical pathological anatomy" is a fundamental medical discipline aimed at studying changes in organs and tissues caused by various pathological processes. The course includes the study of morphological changes in organs and tissues at the macroscopic and microscopic level. Students are introduced to the major diseases of various organs and body systems, their morphological manifestations and clinical aspects. Special attention is paid to the role of pathological anatomy in the diagnosis, treatment and prognosis of diseases, including oncological diseases. Successful mastering of the discipline allows students to master the skills of morphological diagnosis and understanding of the pathogenesis of various pathological conditions.
Course Objectives:	The purpose of studying the discipline is to master the pathology of the cell and general pathological processes, including etiology, pathogenesis and morphology of diseases at different stages of their development, morphology of adaptation and compensation of the organism, as well as the study of changes in diseases under the influence of changing conditions of life, treatment and manipulation.
Prerequisites:	Normal anatomy, normal physiology, biology and medical genetics, histology, microbiology.
Post-requisites:	Forensic medicine, evidence-based medicine, propaedeutics of internal medicine, general surgery.
Learning Outcomes:	Will know terms used in the course of pathological anatomy and basic methods of pathological

(expected knowledge & ability at the end)	<p>anatomical research; concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of disease, nosology, principles of classification of diseases;</p> <p>Will understand the essence and basic regularities of general pathological processes; characteristic changes of internal organs in the most important human diseases;</p> <p>Will be able to use principles of clinical-anatomical analysis of biopsy and surgical material; use the acquired knowledge of structural changes in pathological processes and diseases in the study of subsequent clinical disciplines;</p> <p>Will be able to determine macroscopic changes in organs and tissues in general pathological processes and various diseases (gross examination); the nature of the pathological process and its clinical manifestations; diagnose the causes, pathogenesis and morphogenesis of diseases, their manifestations, complications and outcomes, as well as pathomorphosis;</p> <p>Will be able to perform clinical and anatomical analysis; comparison of morphological and clinical manifestations of diseases; macroscopic diagnosis of pathological processes; microscopic (histological) diagnosis of pathological processes;</p> <p>Will be able to analyze macroscopic morphological characteristics of organs and tissues in order to establish a preliminary pathological diagnosis; clinical, laboratory, experimental and other data, and formulate on their basis a conclusion about the most probable causes and mechanisms of development of pathological processes (diseases);</p> <p>Will be able to synthesize the results of clinical and anatomical analysis.</p>
Basic references:	<ol style="list-style-type: none"> 1. Robbins Basic Pathology (Robbins Pathology) 10th edition 2. Textbook of Pathology, Harsh Mohan 8th edition 3. Robbins and Cotran Pathologic Basis of Disease 10th edition
Supplementary Textbook and Materials:	<ol style="list-style-type: none"> 4. Rapid Review Pathology, Edward F. Goljan 6th edition 5. BRS Pathology 6th edition <p>Websites:</p> <ol style="list-style-type: none"> 1. nature.com - Pathology 2. feedspot.com 3. webpath.med.utah.edu

COURSE POLICY AND EVALUATION CRITERIA:

Type of control (current, milestone, final)	Control form	Assessment of learning outcomes
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Attendance	For one missed lesson minus 2 points	20 points
Current control	Oral survey, written work	20 points
IWS+IWW	Performing assignments, work with literature	20 points
Milestone control (modul submission)	Testing, control tasks	40 points
Final control (differential test)	Conversation, examination (test.edu.kg)	100 points

Scale of correspondence between grades and scores on the final control (exam)	
Score	Grade
90-100	«excellent»
76-89	«good»
60-75	«satisfactory»
0-59	«unsatisfactory»

Course Plan	Lecture / Practice	Subject
1 week	Lecture / Practice	Introduction to pathological anatomy
2 week	Lecture / Practice	Cell injury. Irreversible and reversible cell injury and the role of free radicals. Apoptosis. Necrosis and types of necrosis.
3 week	Lecture / Practice	Intracellular accumulations.
4 week	Lecture / Practice	Mesenchymal dystrophies.
5 week	Lecture / Practice	Mixed dystrophies.
6 week	Lecture / Practice	Cellular adaptation. Atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia.
7 week	Lecture / Practice	Definition of the “repair”, “regeneration”, “growth factors” and “scar formation”.
8 week	Lecture / Practice	Acute inflammation.
9 week	Lecture / Practice	Chronic inflammation.
Modul 1		
10 week	Lecture / Practice	Tumors. General pathology.
11 week	Lecture / Practice	Epithelial and mesenchymal tumors.
12 week	Lecture / Practice	Carcinogenesis, carcinogenic agents, tumor metastasis and tumor markers.
13 week	Lecture / Practice	Tumors in children
14 week	Lecture / Practice	Circulatory disorders-1: edema, ischemia, infarction.

15 week	Lecture / Practice	Circulatory disorders-2: thrombosis, embolism, haemorrhage, shock.
16 week	Lecture / Practice	Genetic disorders (Down, Turner, Klinefelter, Ehlers-Danlos, Marfan syndromes).
17 week	Lecture / Practice	Immunopathology
<i>Modul 2</i>		
18 week	Lecture / Practice	Environmental diseases.