# INTERNATIONAL SCHOOL OF MEDICINE

# SYLLABUS

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| **Program:** | **General medicine** |
| **Qualification of the graduate:** | **General practitioner / Medical doctor** |
| **Year:** | **2023-2024** |
| **Semester:** | **4** |
| **Course duration:** | **18 weeks** |
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| **Instructor**/Assistant/Professor | **Name: Abykeeva D.M., Akmatova A.A.** |
| **Department:** | **Pathology** |
| **Day and Time for consultation**: | **26.10.23y.-27.10.23y.-28.10.23y.** |
| **Classroom:** | **108, 109** |
| **e-mail:** | **dinarabykeeva@gmail.com, akmatovaasiya@gmail.com** |
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| **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.** |

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| **Learning Outcomes: (expected knowledge & ability at the end)** | **Will know terms used in the course of pathological anatomy and basic methods of pathological anatomical research; concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of disease, nosology, principles of classification of diseases;**<br>**Will understand the essence and basic regularities of general pathological processes; characteristic changes of internal organs in the most important human diseases;**<br>**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;**<br>**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;**<br>**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;**<br>**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);**<br>**Will be able to synthesize the results of clinical and anatomical analysis.** |
| **Basic references:** | **1. Robbins Basic Pathology (Robbins Pathology) 10th edition**<br>**2. Textbook of Pathology, Harsh Mohan 8th edition**<br>**3. Robbins and Cotran Pathologic Basis of Disease 10th edition** |
| **Supplementary Textbook and Materials:** | **4. Rapid Review Pathology, Edward F. Goljan 6th edition**<br>**5. BRS Pathology 6th edition**<br>**Websites:**<br>**1. nature.com - Pathology**<br>**2. feedspot.com**<br>**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 surveey, written work | 20 points |
| IWS+IWW | Perfoming 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) | |
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| **Score** | **Grade** |
| 90-100 | «excellent» |
| 76-89 | «good» |
| 60-75 | «satisfactory» |
| 0-59 | «unsatisfactory» |

| Course Plan | Lecture / Practice | Subject |
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| 1 week | **Lecture / Practice** | **Arteriosclerosis. Differentiation between atherosclerosis, medial Monckeberg's calcification and arteriolosclerosis.** |
| 2 week | **Lecture / Practice** | **Hypertension. Primary and secondary hypertension and vascular changes in hypertension. Morphological changes.** |
| 3 week | **Lecture / Practice** | **Vasculitis. Classification. Giant cell arteritis. Takayasu arteritis. Polyarteritis nodosa. General pathogenetic mechanisms of vasculitis. Aneurysms. Classification, etiology and pathogenesis of atherosclerotic aneurysms.** |
| 4 week | **Lecture / Practice** | **Morphology and complications of acute and chronic pneumonia, including atypical pneumonia. Differentiate between pleural effusion, hemothorax, hydrothorax, pleurisy, pneumothorax and chylothorax.** |
| 5 week | **Lecture / Practice** | **Classification of atelectasis based on their mechanisms. Clinical features of Goodpasture's syndrome according to the pathological process. Morphology and clinical features of pulmonary infarction.** |
| 6 week | **Lecture / Practice** | **Diseases of the gastrointestinal tract. Gastritis. Morphological features of acute and chronic gastritis and peptic ulcer. Gastric carcinoma and its difference from gastric lymphoma and gastrointestinal stromal tumor.** |

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| 7 week | **Lecture / Practice** | **Clinical and morphological features of Hirschsprung's disease. Crohn's disease and ulcerative colitis as the main causes of intestinal obstruction.** |
| 8 week | **Lecture / Practice** | **Causes, morphological and clinical features and complications of liver failure. Causes, pathogenesis, complications of liver cirrhosis.** |
| 9 week | **Lecture / Practice** | **Gallstone disease, acute and chronic cholecystitis. Features of gallbladder cancer. Acute and chronic pancreatitis with morphological features.** |
| ***Modul 1*** | | |
| 10 week | **Lecture / Practice** | **Polycystic kidney disease (and its classification). Hydronephrosis.** |
| 11 week | **Lecture / Practice** | **Glomerulonephritis and (its classification). Acute and chronic pyelonephritis.** |
| 12 week | **Lecture / Practice** | **Characteristics of different types of kidney stones. Pathogenesis, clinical features and laboratory diagnosis of nephrolithiasis.** |
| 13 week | **Lecture / Practice** | **Causes, pathogenesis and clinical features of dysfunctional uterine bleeding and their relationship with endometrial hyperplasia, endometrial polyps and carcinoma.** |
| 14 week | **Lecture / Practice** | **Causes, pathogenesis and diagnosis of hormonal disorders of the anterior and posterior lobes of the pituitary gland.** |
| 15 week | **Lecture / Practice** | **Etiology, clinical features, types, diagnosis of various thyroid diseases.** |
| 16 week | **Lecture / Practice** | **Causes of osteoporosis, its pathogenesis, morphological and clinical features.** |
| ***Modul 2*** | | |
| 17 week | **Lecture / Practice** | **Pathogenesis, morphological and clinical features of degenerative arthritis.** |
| 18 week | **Lecture / Practice** | **Pathogenesis, morphological and clinical features and diagnosis of muscular dystrophies.** |