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	**Name: Kenjebaev Sultan**
Department:	**Pathology**
Day and Time for consultation:	
Classroom:	308,310
e-mail:	**Sultan_kg05@mail.ru**
Course Title:	**Pathological physiology**
Must/Elective:	Must
Credit/Hours:	3 credits
Course Description:	a branch of medicine and biology that studies the patterns of occurrence, development and outcome of pathological processes; features and nature of dynamic changes in physiological functions in various pathological conditions of the body.
Course Objectives:	The purpose of the discipline is to study the etiology, pathogenesis, functional foundations of pathological processes, acquired, congenital and hereditary diseases, their complications, outcomes, causes of death in order to use the acquired knowledge in practice in clinical departments and the work of a doctor.
Prerequisites:	molecular biology and medical genetics, biochemistry, anatomy, physiology, histology, microbiology, pharmacology
Post-requisites:	propaedeutics of internal diseases, childhood diseases, infectious diseases, cardiology and other clinical disciplines.
Learning Outcomes: (expected knowledge & ability at the end)	freely operate with modern data relating to issues of etiology, pathogenesis, manifestations and mechanisms of the development of the disease, syndromes and typical pathological processes, their clinical significance, modern possibilities for prevention, diagnosis and treatment; apply the acquired knowledge to solve most standard clinical situations
Basic references:	Kumar, Cotran, Robbins. General pathology Robbins Basic pathology.
Supplementary Textbook and Materials:	Pathology Practical Book, Harsh Mohan. Pathoma – Hussain Sattar

COURSE POLICY AND EVALUATION CRITERIA:

Type of control (current, milestone, final)	Control form	Assessment of learning outcomes
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)	
Score	**Grade**
90-100	«excellent»
76-89	«good»
60-75	«satisfactory»
0-59	«unsatisfactory»

Course Plan	Practice	Subject
1 week	**Practice**	Introduction to pathological physiology.
2 week	**Practice**	Cell Damage. Clinical causes of irreversible and reversible cell damage. The role of free radicals. Apoptosis versus necrosis and types of necrosis.
3 week	**Practice**	Parenchymatous dystrophies.
4 week	**Practice**	Mesenchial dystrophies.
5 week	**Practice**	Mixed dystrophies.
6 week	**Practice**	Circulatory disorders: oedema. Pathogenesis of ischaemic heart disease, including etiological factors, pathogenesis, diagnosis and complications of myocardial infarction, complications of myocardial infarction.
7 week	**Practice**	Blood disorders circulation: thrombosis, embolism, haemorrhage (haemorrhage, shock).
8 week	**Practice**	Acute inflammation. Vascular and cellular events and chemical mediators of acute inflammation. Transudate and exudate.
9 week	**Practice**	Types of chronic inflammation: simple and granulomatous.
Modul 1		
10 week	**Practice**	Clinical aspects of cellular adaptations. Atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia.
11 week	**Practice**	Regeneration: Healing and **r**epair**.**

12 week	**Practice**	Tumours. General pathology. Nomenclature with clinical examples of benign and malqualitative tumours. Definition of protooncogene and oncogene.
13 week	**Practice**	Epithelial tumours. Clinical aspects of carcinogenesis, carcinogenic agents. Metastasis tumours and tumour markers.
14 week	**Practice**	Mesenchymal tumours: Etiology, clinical features, laboratory diagnosis and prognostic factors of acute and chronic lympho-blastic and Myeloblast leukaemia. Multiple myeloma.
15 week	**Practice**	Tumours in children. Clinical aspects classification and staging of tumours with laboratory methods of tumour diagnosis.
16 week	**Practice**	Genetic diseases of Down syndrome, syndrome Turner.
17 week	**Practice**	Genetic diseases Klinefel-ter syndrome, Ehlers-Danlos syndrome and Marfan syndrome.
18 week	**Practice**	Immunopathology. Congenital acquired immunity. Active and passive immunity, hypersensitivity reaction. Graft-versus-host disease.
Modul 2		

Lectures

Course Plan (weeks)	**Subject**
1	Introduction to pathological physiology.
2	Cell Damage. The role of free radicals. Apoptosis versus necrosis and types of necrosis.
3	Circulatory disorders: oedema. Pathogenesis of ischaemic heart disease, including etiological factors, pathogenesis, diagnosis and complications of myocardial infarction, complications of myocardial infarction.
4	Blood disorders circulation: **t**hrombosis, embolism, haemorrhage (haemorrhage, shock)**.**
5	Acute inflammation. Vascular and cellular events and chemical mediators of acute inflammation. Transudate and exudate.
6	Chronic inflammation: simple and granulomatous.
7	Healing and **r**epair**.**

8	Tumours. General pathology. Nomenclature with clinical examples of benign and malqualitative tumours.
9	Mesenchymal tumours: Etiology, clinical features, laboratory diagnosis and prognostic factors of acute and chronic lympho-blastic and Myeloblast leukaemia.