



UNIVERSITY OF BANJA LUKA
FACULTY OF MEDICINE
Department of Pathological Physiology

School years	Subject		Study program	Study cycle	Year of study	Semester	No of student	No of practice gro
2024/25.	PATHOPHYSIOLOGY OF DISEASE		MEDICINE	INTEGRAL	Third	VI	15	1

LECTURE PLAN AND SCHEDULE

Week	No lecture	Thematic unit	Day	Date	Time	Venue		Lecturer
I	П1	Cardiovascular disorder I	Wednesday	26.02.2025.	12:00 - 14:15	Blue hall	3	Prof.dr D.Golić
II	П2	Cardiovascular disorder II	Wednesday	05.03.2025.	12:00 - 14:15	Blue hall	3	Prof. dr D.Golić
III	П3	Red blood cell disorder	Wednesday	12.03.2025.	12:00 - 14:15	Blue hall	3	Prof. M.Vujnić
IV	П4	White blood cell disorder	Wednesday	19.03.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić
V	П5	Coagulation disorders	Wednesday	26.03.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić
VI	П6	Gastrointestinal disease I	Wednesday	02.04.2025.	12:00 - 14:15	Blue hall	3	Prof. D.Golić
VII	П7	Gastrointestinal disease II	Wednesday	09.04. 2025.	12:00 - 14:15	Blue hall	3	Prof. dr D.Golić
VIII	П8	Liver disease	Wednesday	16.04.2025.	12:00 - 14:15	Blue hall	3	Prof. dr D.Golić
IX	П9	Renal disease	Wednesday	23.04.2025.	12:00 - 14:15	Blue hall	3	Prof. dr D.Golić

X	II10	Pulmonary disease	Wednesday	07.05.2025.	12:00 - 14:15	Blue hall	3	Prof. dr D.Golić
XII	II12	Central Nervous system disorder	Wednesday	14.05.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić
XIII	II13	Periferal Nervous system disorder	Wednesday	21.05.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić
XIV	II14	Disorder of locomotor system	Wednesday	28.05.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić
XV	II15	Tect exam. II	Wednesday	04.06.2025.	12:00 - 14:15	Blue hall	3	Prof. dr M.Vujnić

EXERCISE PLAN

Weeks	No	Thematic unit
I	E1	Functional testing of the cardiovascular system I -basics of electrocardiography -determination of heart rate and rhythm -heart rhythm disorders - case report
II	E2	Functional testing of the cardiovascular system II -determination of the electrical axis of the heart -determination of hypertrophy of the atrium and ventricles -electrocardiographic and biochemical diagnostics of myocardial infarction -ergometry - case report
III	E3	Functional testing of red blood cells -erythropoiesis, reticulocytes -erythrocyte disorders (anemia and erythrocytosis) -diagnosis of red blood cell disorders (CKD, erythrocyte indices, iron status, folic acid and vitamin B12) -peripheral blood smear in sideropenic and megaloblastic anemia
IV	E4	Functional testing of white blood cells

		<ul style="list-style-type: none"> -granulocytopoiesis and lymphocytopoiesis -analysis and diagnostic significance of changes in leukocyte count and differential blood count - myeloproliferative and lymphoproliferative diseases -peripheral blood smear in acute lymphatic and chronic myeloid leukemia - case report
V	E5	<p>Functional examination of the hemostatic system I</p> <ul style="list-style-type: none"> -functional characteristics and mechanisms of action of the hemostatic system -capillaropathies-capillary resistance test -thrombocytopoiesis, functional and morphological characteristics of platelets -determination of the number and examination of platelet function -Duke bleeding time; peripheral blood platelet examination, aggregometry - case report
VI	E6	<p>Functional examination of the hemostatic system II</p> <ul style="list-style-type: none"> -coagulation and anticoagulation mechanisms -congenital and acquired disorders of the coagulation mechanism -congenital and acquired disorders of the anticoagulation mechanism -PV, APTT, TT, fibrinogen, D-dimer and fibrin degradation products - case report
VII	E7	<p>Functional examination of the digestive system:</p> <p>Introduction to the diagnosis of Helicobacter pylori infection (breath test and fecal antigen test) and determination of antibodies (rapid test)</p> <p>Introduction to the diagnosis of gluten enteropathy ((determination of antibodies to tissue transglutaminase)</p> <p>Functional examination of the exocrine pancreas</p> <ul style="list-style-type: none"> -acute and chronic pancreatitis -determination of amylase activity in serum and urine and interpretation of pathological findings -tests for occult blood in the stool and examination of stool for food digestibility -case report
VIII	E8	<p>Functional hepatobiliary system</p> <ul style="list-style-type: none"> -bilirubin metabolism disorders -demonstration of direct and indirect bilirubin in serum -demonstration of bilirubin, urobilinogen and urobilin in urine and interpretation of pathological findings

		<ul style="list-style-type: none"> - diagnostic significance of enzyme activity in liver and biliary tract diseases (AST, ALT, ALP, GGT, pseudocholinesterase) - case report
IX	E9	<p>Functional examination of the uropoietic system I</p> <ul style="list-style-type: none"> -physical examination of urine -chemical analysis of urine using test strips, proteinuria testing -microscopic examination of urine sediment -interpretation of pathological findings - case report
X	E10	<p>Functional testing of the uropoietic system II</p> <ul style="list-style-type: none"> -nitrogenous substances -testing of the dilution and concentration capacity of the kidneys and urine osmolarity -renal clearances, determination of creatinine concentration in urine and creatinine clearance - interpretation of pathological findings - case report
XI	E11	<p>Functional testing of the respiratory system</p> <ul style="list-style-type: none"> -disorders of ventilation, diffusion and perfusion of the lungs -examination of the ventilation function of the lungs-small spirometry (spirogram analysis and interpretation of pathological findings), pulse oximetry - analysis of AB balance disorders and gases in ventilation disorders - case report
XII	E12	<p>Functional examination of the nervous system</p> <ul style="list-style-type: none"> -basics of pathophysiology of the nervous system -cerebrospinal fluid analysis and interpretation of findings -basics of EEG and other functional diagnostic methods of the nervous system - case report
XIII	E13	<p>Functional testing of bone metabolism disorders: Introduction to tests for assessing bone metabolism (calcium and phosphorus in serum and urine, PTH, vitamin D, markers of bone formation and resorption) and bone mass measurement by osteodensitometry (DXA).</p>
XIV	E14	<p>Colloquiums, testing of knowledge and skills</p>

Prof. dr D.Golić

