

Faculty of Medicine / MEDICINE / INTERNAL MEDICINE
Phy.med25Med.Occ.med6,Spec.epid.4

Course:	INTERNAL MEDICINEPhy.med25Med.Occ.med6,Spec.epid.4			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
634	Mandatory	8	28	5.53+8+0
Programs	MEDICINE			
Prerequisites				
Aims	Aims of the subject- to introduce students with the diagnosis, monitoring and treatment of internal patients/ pulmonology, cardiology, immunology, hematology, endocrinology, nephrology, gastroenterology and rheumatology			
Learning outcomes	After completing two semestral study and passing the exam in Internal medicine, student of Medicine should have the following learning outcomes : 1. Connects causes and mechanisms of the most frequent internal diseases. 2. Recognizes symptoms and signs of the most frequent internal diseases 3. Knows and uses effectively diagnostic methods that are available in order to make correct diagnosis as early as possible. 4. Uses practical procedures for diagnostic and therapeutic purposes (measuring of clinical parameters, dosing, preparation and administering of therapy, taking of samples, vein line, placement of sondes and kateters) 5. Formulates a management plan and administers adequate treatment for the most frequent internal diseases. 6. Applies principles of prevention of internal diseases and promotion of health. 7. Owns developed communication skills with patients, vicinity and healthcare team and applying principles of team work. . Domain -working medicine : 1. The student is able to recognize symptoms and signs of professional diseases and diseases in relation to operation of respiratory tract. 2. Estimates temporary and permanent work (dis)abilities of the most common cardiovascular diseases.			
Lecturer / Teaching assistant	Prof.dr Aneta Bošković, Prof. dr Ljiljana Musić Gledović, Prof. dr Snežana Vujošević , Prof. dr Brigita Smolović and assistants			
Methodology	lectures, practical exercises, seminars, colloquia, consultations			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Pulmonology: Introduction, COPD. Bronchial asthma, ARDS, Chronic respiratory insufficiency			
I week exercises	students learn history, physical examination and additional diagnostic procedures for COPD, asthma; learn to recognize ARDS, what are the risk factors, how to diagnose, how to treat			
II week lectures	Infection of the lungs. Echinococcosis lungs. pulmonary thromboembolism			
II week exercises	students get acquainted with the most common lung infections, the way of taking the anamnesis and physical examination, as well as the interpretation of laboratory and other additional findings; students learn the importance of recognizing chronic respiratory failure and the possibilities of its treatment, as well as how to recognize a patient with an urgent condition such as pulmonary thromboembolism			
III week lectures	Pulmonary tuberculosis. Tumors of the respiratory system.			
III week exercises	students learn the basics of history and physical examination and the importance of additional diagnostic procedures for tuberculosis; students are introduced to pleural diseases; students attend and assist in performing pleural puncture, lung base ultrasound; students learn to interpret pleural puncture findings			
IV week lectures	Interstitial lung disease. Professional lung disease. Diseases of the pleura. Colloquium			
IV week exercises	students learn the basics of history and physical examination and the importance of additional diagnostic procedures for tumors of the respiratory system and echinococcosis and fungal diseases of the lungs; students get acquainted with the most common occupational lung diseases, risk factors, diagnosis, treatment and prevention options			
V week lectures	Cardiology: Introduction. Hypertension. Ischemic heart disease. Myocardial infarction.			
V week exercises	students practice measuring blood pressure, interpreting findings; the specifics of anamnesis, physical examination and additional diagnostic procedures in the examination of heart disease are studied			
VI week lectures	Rhythm disorders. Syncope. Sudden cardiac death.			
VI week exercises	students learn the most serious heart rhythm disorders, how to recognize them and how to take care of them most urgently; students practice physical findings and interpret additional diagnoses of acquired heart defects			
VII week lectures	Cardiology: Rheumatic fever. Acquired heart defects. Cardiomyopathy.			

VII week exercises	students learn physical examination in myocarditis, endocarditis, pericarditis, emphasizing the importance of additional diagnostic procedures, students learn about the importance of prevention of endocarditis, students learn the interpretation of ECG in these diseases; students practice anamnesis and physical examination and participate in the interpretation of the findings of additional diagnostics in patients with cardiomyopathy
VIII week lectures	Myocarditis. Endocarditis. Pericarditis. Acute and chronic pulmonary heart.
VIII week exercises	Students practice diseases (their anamnesis and physical findings) that are associated with the development of acute and chronic pulmonary heart disease, and learn to recognize these conditions; learn the basics of caring for a patient with acute and chronic pulmonary heart disease; students practice examination of venous and arterial peripheral circulation and learn which additional diagnostic procedures need to be done
IX week lectures	Heart failure. Diseases of the aorta and peripheral circulation. Tumors of the heart. Epidemiology of CVD .Colloquium
IX week exercises	tudents practice on patients with right and left heart failure, learn to differentiate, physical examination, diagnosis and therapeutic options
X week lectures	Gastroenterology: Introduction. Diseases of the esophagus. Diseases of the diaphragm. Diseases of the stomach and duodenum.
X week exercises	students practice the anamnesis of the most common diseases of the upper part of the digestive tract, how to distinguish between them, how to prevent them, how to diagnose and how to treat; students attend upper GI tract endoscopy; students are introduced to esophageal manometry and pHmetry
XI week lectures	Diseases of the small intestine. Diseases of the colon. Bleeding from the digestive tract
XI week exercises	Students learn the examination in patients with bleeding from the GI tract; learn rectal showers; students learn the specificity of anamnesis, physical examination in inflammatory bowel disease; students attend endoscopy of the lower lobes of the digestive tract; get acquainted / attend the performance of the endoscopic video capsule of the small intestine; students learn the importance of colorectal cancer prevention and the importance of screening
XII week lectures	Diseases of the biliary tract. Diseases of the pancreas.
XII week exercises	students practice the anamnesis of the most common diseases of the biliary tract and pancreas, learn the basics of physical examination, importance and interpretation of additional diagnostics with special emphasis on the interpretation of laboratory findings in these diseases
XIII week lectures	Gastroenterology: Liver disease. Diseases of the peritoneum..Occupational medicine: Occupational diseases of the respiratory tract. Work related diseases of the cardiovascular system.
XIII week exercises	students practice on patients with liver diseases - learn anamnesis, physical examination, the importance of additional diagnostics, interpretation of laboratory, virological and immunological findings; students are introduced to the importance of fibroscan and attend percutaneous liver biopsy; students are introduced to additional diagnostic methods and participate in their interpretation when it comes to diseases of the blood vessels of the liver; students learn to recognize patients with cirrhosis of the liver, treatment and basics of liver transplantation
XIV week lectures	Occupational medicine: Occupational diseases of the respiratory tract. Work related diseases of the cardiovascular system.
XIV week exercises	Occupational medicine: Temporary and permanent work ability assessment of the most common cardiovascular diseases.
XV week lectures	Epidemiology in internal medicine. Colloquium
XV week exercises	exercises follow the lectures
XVI week lectures	Endocrinology: Introduction. Diseases of the hypothalamus and pituitary gland. Diseases of the thyroid and parathyroid glands.
XVI week exercises	students learn the peculiarities of the physical examination in diseases of the hypothalamus and pituitary gland; they learn the examination of the thyroid gland, additional diagnostics of thyroid gland diseases; they participate in the interpretation of the hormonal status of the thyroid and parathyroid glands
XVII week lectures	Diseases of the adrenal glands. Diseases of the gonads.
XVII week exercises	students examine patients with the most common diseases of the adrenal gland, learn the interpretation of laboratory and hormonal status in diseases of the adrenal glands and gonads
XVIII week lectures	Diabetes mellitus. Eating disorders. Multiple endocrine neoplasia. Emergencies
XVIII week exercises	students become familiar with types of DM, diagnostics, treatment; they learn to recognize acute and chronic complications of DM and the basics of treatment;students learn examples of balanced nutrition and get to know patients who require emergency endocrinological care, treatment and

	monitoring
XIX week lectures	Nephrology: Introduction. Proteinuria and hematuria. Sy nephroticum, Glomerulonephritis. Tubulopathies. Colloquium IV.
XIX week exercises	students learn the specifics of history, physical examination and interpretation of additional analyzes for patients with glomerulonephritis and tubulopathies; they learn nephrotic syndrome, its division, diagnosis and treatment
XX week lectures	Tubulointerstitial nephropathy. Urinary tract infections. Nephrolithiasis. Polycystic kidney. Tumors.
XX week exercises	students participate in the examination of patients with infections and kidney calculus, as well as congenital kidney diseases; they become familiar with the necessary additional diagnostics and basic types of treatment of these diseases
XXI week lectures	Acute and chronic renal failure. Dialysis and transplantation. Pregnancy and kidney
XXI week exercises	students learn the difference between acute and chronic renal failure with special reference to the type of treatment; Students attend hemodialysis, learn about blood access for hemodialysis; students learn about the types of peritoneal dialysis and the basics of the kidney transplant program
XXII week lectures	Rheumatology: Introduction. Inflammatory-primarily articular rheumatic diseases. Colloquium V.
XXII week exercises	students get to know patients with inflammatory primary joint diseases, learn the peculiarities of physical examination; students learn the interpretation of laboratory and immunological analyses; participate in the interpretation of X-ray, echo, MRI findings; they become familiar with the basics of treating these diseases
XXIII week lectures	Systemic connective tissue diseases. Metabolic arthropathies. Infectious arthritis. Osteoporosis.
XXIII week exercises	students are taught to recognize numerous SBVT diseases, their characteristics; they attend the echo of the joint and joint joints; attend capillaroscopy; study and examine patients with self-metabolic arthropathies; they learn to differentiate infectious arthritis; learn about osteoporosis, risk factors, diagnosis, treatment; attend osteodensitometry
XXIV week lectures	Degenerative rheumatic diseases. Extra-articular rheumatic diseases. Changes in other diseases.
XXIV week exercises	students learn the difference between degenerative and inflammatory rheumatism; students learn the basics of the most common ones extra-articular diseases
XXV week lectures	Hematology: Hematopoiesis. Anemia. Diseases of neutrophils, monocytes and macrophages.
XXV week exercises	students study, examine patients with different types of anemia; students become familiar with peripheral blood findings and participate in its interpretation
XXVI week lectures	Malignant hematological diseases. Bone marrow transplantation
XXVI week exercises	students get to know patients with the most common malignant hematological diseases; They learn the importance of the diagnostic procedure and learn the basic treatment and monitoring algorithms; they attend the performance of a bone marrow biopsy/bone biopsy; they become familiar with the basics of TMCH
XXVII week lectures	Disorders of hemostasis. Thrombosis. Transfusion medicine
XXVII week exercises	students become familiar with patients who have disorders of hemostasis and the importance of their care; attend the preparation and prescribe blood products
XXVIII week lectures	Physical medicine: CVD rehabilitation. VI colloquium
XXVIII week exercises	familiarization with CVD rehabilitation
XXIX week lectures	Physical medicine: rehabilitation of pulmonary disease.
XXIX week exercises	familiarization with rehabilitation of patients with pulmonary disease
XXX week lectures	Upoznavanje sa rehabilitacijom najčešćih reumatoloških bolesti
XXX week exercises	familiarization with rehabilitation of patients with rheumatological disease.
Student workload	11.5 credits x 40/30 = 15.3 hours Structure: 5 hours of lectures 8 hours of exercise 1 hour seminar paper 1.3 hours of independent work in the preparation of exercises and colloquia, including consultations
Per week	Per semester
28 credits x 40/30=37 hours and 20 minuts 5 sat(a) theoretical classes 0 sat(a) practical classes 8 excercises 23 hour(s) i 48.2 minuts of independent work, including consultations	Classes and final exam: 37 hour(s) i 20 minuts x 16 =597 hour(s) i 20 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 37 hour(s) i 20 minuts x 2 =74 hour(s) i 40 minuts Total workload for the subject: 28 x 30=840 hour(s)

		Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 168 hour(s) i 0 minuts Workload structure: 597 hour(s) i 20 minuts (courses), 74 hour(s) i 40 minuts (preparation), 168 hour(s) i 0 minuts (additional work)				
Student obligations		Regular attendance at theoretical classes and regular attendance at exercises				
Consultations						
Literature		Interna medicina I i II, Katedra interne medicine - M. Kostić, Zavod za udžbenike, Beograd, 2009; Interna medicina, 4 Ed, B. Vrhovac sa autorima, Zagreb, 2008. Harrison: Principles of Internal Medicine, 18 Ed 2011.				
Examination methods		Attendance at theoretical and practical classes and testing of knowledge in exercises - 8 points; Colloquium 42 points; Final exam: practical and oral - 50 points A passing grade is obtained if a minimum of 50 points is accumulated cumulatively.				
Special remarks						
Comment		Methodical units of practical teaching correspond to methodical units of theoretical teaching				
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points