

Name of the course	Internal Medicine			Code	MSE403
Type of study program:	Integrated University Study program, Medicine			Year of study:	4
Credits (ECTS):	19.5	Semester:	VII	Number of hours per semester (l+e+s)	340 (65+80+195)
Status of the course:	obligatory	Preconditions:	Passed all exams of the 3 rd year	Comparative conditions:	/
Access to course:	Fourth year students			Hours of instructions:	According to schedule
Course teacher:	Assn. professor Emil Babić, MD, PhD				
Consultations:	As agreed				
E-mail address and phone number:	emil.babic@yahoo.com + 387 63 790 044				
Associate teachers	Professor Danijel Pravdić, MD, PhD Professor Milan Kujundžić, MD, PhD Professor Davor Štimac, MD, PhD Professor Suzana Kukulj, MD, PhD Professor Igor Aurer, MD, PhD Professor Darko Kaštelan, MD, PhD Professor Branimir Anić, MD, PhD Professor Edvard Galić, MD, PhD Professor Željko Puljiz, MD, PhD Assistant professor Mirjana Vasilj, MD, PhD Assistant professor Ivanka Mikulić Assistant professor Boris Starčević, MD, PhD Assn.prof. Ante Bogut, MD Kristina Galić, MD, PhD Fila Raguž, MD Sanja Selak, MD Ante Mandić, MD Tanja Zovko, MD Ivan Tomić, MD Andrea Stojčić, MD Belma Sarić, MD Ivan Bešlić, MD Dino Markota, MD				
Consultations:	As agreed				
E-mail address and phone					
The aims of the course:	The objectives of this course are to introduce students to: <ul style="list-style-type: none"> - prevention of internal diseases - etiologic and pathogenetic processes leading to the occurrence of internal diseases - practical skills needed for clinical examination - laboratory and diagnostic procedures in internal medicine - diagnostic algorithms in internal medicine - planning and implementation of specific treatment of internal diseases and monitoring treatment outcomes. 				
Learning outcomes (general and specific competences):	<u>General outcomes:</u> <ul style="list-style-type: none"> - Applying the independent learning through the study in the way of critical and self-critical questioning of scientific truth. - Applying the theoretical knowledge in practice. - Demonstrating the possession of personal qualities (team work and personal contribution, interest, active listening, and building positive relationships with members of the group). <u>Specific outcomes:</u> <ul style="list-style-type: none"> - Applying theoretical knowledge in internal medicine. - Understanding and recognizing the clinical presentations and syndromes in internal medicine. 				

	<ul style="list-style-type: none"> - Applying practical skills, specific laboratory tests and diagnostics needed for clinical examination in internal medicine. - Describing the invasive and interventional therapeutic procedures in internal medicine. - Applying the modern diagnostic algorithms in internal medicine and analyzing the test results. - Applying the specific internal-medicine therapy, analyzing the results and outcomes of treatment. 			
Course content (Syllabus):	<p>Course content: lectures, seminars and exercises. Every day classes begin with exercises during 3 hours with associate teachers. Before exercises students have nursing practice. The exercises are held at the Department of Internal Medicine and Department of Pulmonary Diseases. After the exercises students have seminars and lectures held at the Medical School. The list of teaching units is provided below.</p>			
Format of instruction: (mark in bold)	Lectures	Exercises (clinical practicals)	Seminars	Independent assignments
	Consultations	Work with mentor	Field work	Other
	Remarks:			
Student responsibilities:	Students are required to attend all forms of course and presence will be check by roll call or students will have to sign the previously prepared forms.			
Screening student work (mark in bold)	Class attendance	Class participations	Seminar essay	Practical training
	Oral exam	Written exam	Continuous assessment	Essay
Detailed evaluation within a <i>European system of points</i>				
STUDENTS RESPONSIBILITIES	HOURS	PROPORTIONS OF ECTS CREDITS	PROPORTIONS OF MARK	
Class attendance and participations	340	11.3	0%	
Seminar essay	15	0.5	0%	
Written exam	120	4	45%	
Practical exam	30	1	10%	
Oral exam	80	2.7	45%	
Total	585	19.5	100%	
Further clarification:				
The internal medicine exam consists of three parts: written, practical and oral .				
The final grade is obtained as a weighting of the grades from the practical exam (10% of the grade), written exam (45% of the grade), and oral exam (45%).				
The written exam consists of 50 test-questions with one correct answer. According to the Rulebook on Studying at the University of Mostar grades are assigned as follows: 0-54% insufficient (1); 55-66% sufficient (2); 67-78% good (3); 79- 90% (very good 4); 91-100% excellent (5).				
After passing the written part, a practical exam follows. The practical exam consists of taking patient anamnesis and clinical status and determining the correct diagnostic and therapeutic algorithm.				
After passing the practical exam, the oral part follows. The oral exam is based on the recommended literature.				
Required literature:	<ol style="list-style-type: none"> 1. Kumar and Clark's Clinical Medicine. 10th Edition. 2020. 2. Jameson JL et al. Harrison's Principles of Internal Medicine. 20th Edition, McGrawHill Professional, 2018. 			
Optional literature:	<ol style="list-style-type: none"> 1. Steven Agabegi. Elizabeth Agabegi. Step up to medicine. 5th edition 			

Additional information about the course	Monitoring methods of teaching quality: <ul style="list-style-type: none"> - student questionnaire - quality analysis by students and teachers - exam results analysis - report of the office for teaching quality - external evaluation (visit of team for quality control)
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Annexes: calendar classes

The number of teaching units	TOPICS AND LITERATURE
I.	Title: Diseases of the heart valve and congenital defects. Myocarditis and cardiomyopathy Short description: Symptoms and methods of examinations in cardiology Literature: required and optional
II.	Title: Treatment of Heart Failure. Ischemic heart disease, acute coronary syndrome, chronic coronary artery disease Short description: ECG Recording - Normal ECG, hypertrophy, preexcitation blocks. ECG in coronary heart disease, pericarditis. Clinical recognition and approach to a coronary patient. Emergency conditions in cardiology Literature: required and optional
III.	Title: Treatment of rhythm disturbances. Disease of peripheral arteries and veins Short description: ECG Tachycardia and Bradycardia Rhythm Disorders Literature: required and optional
IV.	Title: Chronic obstructive pulmonary disease. Pneumonia. TBC of lungs. Short description: Examination methods in pulmonology. Diseases of the interstitium and diaphragm Literature: required and optional
V.	Title: Carcinoma of the bronchus and lung. Short description: Pulmonary hypertension, pulmonary embolism. Emergency conditions in pulmonology. Pleural and mediastinal diseases Literature: required and optional
VI.	Title: Diagnostic approach in gastroenterology; Ulcer. Gastroesophageal reflux. Inflammatory bowel disease. Short description: Abdominal pain. Malabsorption. Diarrhea. Obstipation. Literature: required and optional
VII.	Title: Hemochromatosis. Wilson's disease. Primary biliary cirrhosis. Biliary lithiasis. Viral hepatitis. Liver cirrhosis. Liver transplantation Short description: Portal Hypertension. Ascites. Spontaneous bacterial peritonitis Literature: required and optional
VIII.	Title: Gastrointestinal bleeding. Functional intestinal diseases. Pancreatitis Short description: Tumors of the esophagus, stomach, pancreas. Colorectal cancer. Liver and biliary tumor Literature: required and optional
IX.	Title: Diagnosis of Renal Diseases. Chronic renal insufficiency Short description: Acute Renal Insufficiency. Replacement therapy for renal insufficiency. Inflammation of the urinary system Literature: required and optional
X.	Title: Glomerular disease. Arterial hypertension. Tubulointerstitial diseases Short description: Secondary Glomerular Disease. Nephrolithiasis, kidney tumors. Literature: required and optional
XI.	Title: The hematopoietic system. Transfusion. Short description: Diagnostic Methods in Hematology. Literature: required and optional
XII.	Title: Hemostasis disorders. Myeloid diseases. Lymphocytic diseases. Short description: Hemorrhagic Diathesis, Anticoagulant Treatment, Thrombophilia. Granulocytopenia, granulocytosis, eosinophilia, erythrocytosis, thrombocytosis. Increased lymph node, lymphocytosis. Anemia Literature: required and optional
XIII.	Title: Introduction to Endocrinology. Thyroid diseases. Diseases of the adrenal cortex Short description: The Importance of Laboratory in Endocrinology. Literature: required and optional

XIV.	Title: Diseases of the hypothalamic-pituitary system. Disorders of calcium metabolism
	Short description: Diseases of the gonads (reproductive glands). Pheochromocytoma - endocrine tumors. Hyperlipoproteinemia. Metabolic bone diseases.
	Literature: required and optional
XII.	Title: Diabetes mellitus. Therapy with insulin and oral antidiabetic drugs
	Short description: Acute complications of diabetes. Control of diabetes
	Literature: required and optional
XIV.	Title: Systemic lupus erythematosus. Rheumatoid arthritis. Vasculitis.
	Short description: Laboratory methods in clinical immunology and rheumatology. Sjögren's syndrome. Reactive arthritis. Psoriatic arthritis.
	Literature: required and optional
XII.	Title: Seronegative spondyloarthritides (Ankylosing spondylitis). Osteoarthritis. Extra-articular rheumatism.
	Short description: Polymyositis/dermatomyositis. MCTD (Mixed Connective Tissue Disease). Polymyalgia rheumatic. Systemic sclerosis
	Literature: required and optional

List of lectures:

- L(1): Introduction to internal medicine.
- L(2): Laboratory tests. EF proteins. ABS. Urine.
- L(3): EKG (normal and pathologic).
- L(4): Congenital heart disease and valvular disease.
- L(5): Coronary heart disease.
- L(6): Heart failure
- L(7): Peripheral vascular disease
- L(8): Pneumonias.
- L(9): Pulmonary embolism.
- L(10): Lung and bronchial tumors.
- L(11): Esophageal, gastric and duodenal disease
- L(12): Liver diseases.
- L(13): Peptic ulcer disease & GI bleeding.
- L(14): Colorectal cancer
- L(15): Inflammatory Bowel Disease.
- L(16): Diverticular disease
- L(17): Viral hepatitis.
- L(18): Acute, chronic & AI pancreatitis.
- L(19): Biliary tract diseases
- L(20): Celiac disease.
- L(21): Anemias
- L(21): Malignant disease of the myeloid system.
- L(22): Malignant disease of the lymphatic system.
- L(23): Acute leukemia, diagnosis, clinic presentation and treatment.
- L(24): Thyroid gland disorders
- L(25): Diabetes.
- L(26): Reproductive system disorders.
- L(27): Rheumatoid arthritis.
- L(28): Polymyositis, dermatomyositis. Vasculitis.
- L(29): SLE. Sjögren.

List of seminars:

- S(1): Endocarditis, myocarditis, rheumatic fever.
- S(2): Arrhythmias, sudden death.
- S(3): Diagnostic procedures in cardiology. Heart electrophysiology.
- S(4): Cardiopulmonary resuscitation. Cardiogenic shock.
- S(5): Pericardial disease.
- S(6): Respiratory insufficiency and emergencies
- S(7): Intestinal lung disease.
- S(8): Bronchitis, asthma and pulmonary emphysema.
- S(9): Arterial hypertension
- S(10): Acute renal failure
- S(11): Chronic renal failure

S(12): Drugs and kidney
S(13):Glomerulonephritis.
S(14):Nephrolithiasis
S(15): Endoscopic procedures.
S(16): Tumors of the digestive system.
S (17): IBS.
S(18): Clostridium difficile infection.
S(19): Anticoagulant and thrombolytic therapy.
S(20): Hemorrhagic syndrome and hemophilia.
S(21): Chronic leukemia, diagnosis, clinic presentation and treatment.
S(22): Granulocyte, monocyte and macrophage diseases.
S(23): Hypercoagulability. DIC
S(24): Adrenal gland disorders.
S(25): Pituitary gland disorders.
S(26):Parathyroid gland.
S(27): Osteoporosis, Paget disease& hereditary connective tissue diseases .
S(28): Obesity
S(29): Metabolic diseases.
S(30): Multiple endocrine glands disorders.
S(31): Seronegative spondyloarthritis.
S(32): Sarcoidosis. Amyloidosis

Exercises – Clinical practicals:

Exercises are held in all organizational units of the Department of Internal Medicine and follow the topics of lectures and seminars.