

Study program : MEDICINE
Type and level of studies: Integrated academic studies, Level 1/2
Course unit: PATHOPHYSIOLOGY
Teacher in charge : Professor Aleksandar Djukic
Language of instruction : ENGLISH
ECTS: 15
Prerequisites: Completed course in physiology
Semester: WINTER SEMESTER
Course unit objective: Acquiring knowledge and skills in pathological physiology
<p>Learning outcomes of Course unit: The knowledge acquired during the teaching of pathological physiology enables the doctor of medicine to:</p> <ul style="list-style-type: none"> - to learn what are the etiological factors of certain diseases - to learn and understand the pathophysiological mechanisms by which certain diseases develop - to learn the genesis of pathological processes and their development from biochemical, through humoral to tissue changes - to understand the appropriate clinical manifestations of the disease, and the principles of body adaptation and response to different agents - to interpret the results of laboratory tests and functional tests of the disease-affected organism
<p>Course unit contents</p> <p><i>Theoretical classes</i></p> <p><i>General pathological physiology:</i> Introduction to pathological physiology. Biological etiological factors. Inflammation and infection. Disorders of non-specific and specific protection of the organism. Local and systemic circulation disorders. Mechanical and physical etiological factors. Chemical etiological factors. Homeostasis disorders. Water and electrolyte metabolism disorders. Disorders of acid-base balance. Vitamins and oligoelements.</p> <p><i>Special pathological physiology:</i> Pathophysiology of the cardiovascular system. Pathophysiology of respiration. Pathophysiology of hematopoietic system. Pathophysiology of the urinary system. Pathophysiology of the gastrointestinal and hepatobiliary system. Organic material (proteins, carbohydrates, lipids) metabolism disorders. Pathophysiology of endocrine system. Pathophysiology of the nervous system. Aging. Pathophysiology of skin and connective tissue. Locomotor system.</p> <p><i>Practical classes:</i> Methods of functional diagnostics of the disease-affected individual organs and organ systems - interpretation of results. Laboratory analyzes of urine, blood, exudates, gastric juice in certain pathological conditions. Interpretation of experimental models of pathological conditions.</p>
<p>Literature</p> <p>McCance KL, Huether SE. Pathophysiology: The Biologic Basis for Disease in Adults and Children. 8th edition, Elsevier Health Sciences, USA, 2019.</p> <p>Norris TL. Porth's Essentials of Pathophysiology. 5th edition, Lippincott Williams and Wilkins, USA, 2019.</p> <p>Brashers VL. Clinical Applications of Pathophysiology: An Evidence-Based Approach. 3rd edition, Mosby Elsevier, USA, 2006.</p> <p>Bruyere HJ. 100 Case Studies in Pathophysiology. Lippincott Williams and Wilkins, USA, 2009.</p>

Number of active teaching hours				Other classes
Lectures: 30	Practice: 15	Other forms of classes:	Independent work: 150	
Teaching methods: Lectures, practice in a clinic, clinical problems solving				
Examination methods (maximum 100 points)				
Exam prerequisites	No. of points:	Final exam	No. of points:	
Student's activity during lectures	30	oral examination		
practical classes/tests		written examination	70	
Seminars/homework				
Project				
Other				

Grading system		
Grade	No. of points	Description
10	95-100	Excellent
9	85-94	Exceptionally good
8	75-84	Very good
7	65-74	Good
6	55-64	Passing
5	< 54	Failing

Course unit description