

Study program: DENTISTRY			
Type and level of studies: Integrated academic studies, Level 1/2			
Course unit: PHYSIOLOGY			
Teacher in charge: Professor Vladimir Jakovljevic, MD, DSc, MSc			
Language of instruction: ENGLISH			
ECTS: 6			
Prerequisites: Enrollment in the first year, first semester of study			
Semester: SUMMER SEMESTER			
Course unit objective: Introducing students with the functional basis of physiological processes in the human body and the basics of oral physiology.			
Learning outcomes of Course unit:			
<ul style="list-style-type: none"> • Knowledge about the functioning of the muscular, cardiovascular, hematopoietic, respiratory, genitourinary, gastrointestinal, endocrine and central nervous systems. • Knowledge about the basic physiological principles of the physiology of the senses. • Understanding the basic principles of oral physiology. • Skills about measurement of basic body functional parameters (blood pressure, ECG, spirometry, blood types, blood sugar and insulin levels, defining of the nutrition principle, composing of a daily meal, nervous reflexes). 			
Course unit contents			
<p><i>Theoretical classes</i> Homeostasis and control systems of the organism. Cell membrane physiology. Physiology of excitable tissues. Cardiac physiology. Circulation physiology. Blood physiology. Physiology of the respiratory system. Kidney physiology. Physiology of the gastrointestinal system. Physiology of the endocrine system. Physiology of the central nervous system 1. Physiology of the central nervous system 2. Physiology of the senses. Salivary physiology. Physiology of oral tissues. Physiology of the orofacial region.</p> <p><i>Practical classes</i> Anesthesia. Injection techniques. Performance, registration, processing and analysis of muscle contraction. Auscultation of heart tones. ECG recording and analysis. Determining pulse quality. Blood pressure measurement. Determination of number: erythrocytes, reticulocytes. Determination of hematocrit values. Determination of blood groups. Determination of leukocyte count. Determination of leukocyte formula: relative and absolute. Clinically important tests to assess the status of the hemostasis system. Spirometry. Determining the lung volume and capacities. Determination of renal function. Concentration and dilution test. Clinically important clearances. Fundamentals of energy metabolism. Tests to assess the function of the single glands. Examination of clinically important reflexes. Tests to assess the function of the senses: sight, hearing, balance. Clinical specifics and significance of saliva secretion. Physiology of the temporomandibular joint. Sensitivity of the orofacial region.</p>			
Literature			
<ul style="list-style-type: none"> • Vladimir Lj. Jakovljevic (editor-in-chief). Ganong's review of medical physiology. 1st edition in Serbian. Faculty of Medical Sciences, University of Kragujevac; 2015. (Kim E. Barrett, Susan M. Barman, Scott Boitano, Heddwen Brooks. Ganong's Review of Medical Physiology. 24th Edition. LANGE Basic Science; 2012.) 			
Number of active teaching hours: 105			Other classes
Lectures: 60	Practice: 45	Other forms of classes: Independent work:	
Teaching methods: Lectures and small group work.			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points:	Final exam	No. of points:
Student's activity during lectures	15	oral examination	

practical classes/tests	15	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	< 55	Failing	

(Table 5.2) Course unit description