

## COURSE DESCRIPTION

<b>Academic year:</b> 2022/2023	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Pharmacy	
<b>Course ID:</b> FaF.KFT/02-Bc/00	<b>Course title:</b> Human Anatomy and Physiology
<b>Educational activities:</b> <b>Type of activities:</b> lecture / laboratory practicals <b>Number of hours:</b> <b>per week:</b> 2 / 2 <b>per level/semester:</b> 28 / 28 <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> I.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 1) 100% presence at practical exercises. Justified absence (max 2x) is compensated by: a) substitute exercise b) written work 2) sufficiently proven readiness for practical exercises 3) successful passing of the final exam in the form of a written test, with a minimum of 60% success rate	
<b>Learning outcomes:</b> After successfully ending the tuition process, the student should be able to master the basics of human anatomy and physiology. At the same time, the students should know the basic imaging methods, the most commonly determined biochemical parameters of select systems of the human body, the devices most commonly used for the examination of major physiological processes in the human body.	
<b>Class syllabus:</b> - Basic terminology in anatomy and physiology. Anatomy of the nervous system. Protection and nutrition of the CNS. - physiology of the nervous system (sensory, motor, integration system) - anatomy and physiology of muscles (smooth, striated and heart muscle; neuromuscular junction) - anatomy of the cardiovascular system (heart, vessels, systemic and pulmonary circulation) - physiology of the heart and circulation (cardiac cycle, blood supply of the heart, ECG, blood pressure, arterial and venous hemodynamics, microcirculation, portal circulation) - blood components, coagulation and immune system (blood cells and their functions, non-cellular components of blood, basics of blood coagulation) - anatomy and physiology of respiration (respiratory system, mechanics of breathing, transport and exchange of gasses, control of respiration) - anatomy and physiology of the gastrointestinal system. Basics of digestion, secretory functions, enterohepatic circulation. - anatomy and physiology of the urological system (anatomy, physiology of the kidneys and urinary tract, urine and basic mechanisms of its formation)	

- reproductive system, sex hormones, reproduction and pregnancy (anatomy, physiology of the male and female sex organs, function of sex hormones, fertilization, prenatal development)
- endocrine system and hormonal control of the body (hormones and their feedback systems, hypothalamus-pituitary system, thyroid hormones, homeostasis hormones)
- general osteology (bone tissue, development and growth of bones, bone as an organ. Functions of bone and its relation to bone composition)

**Recommended literature:**

Andrea Čalkovská: Fyziológia človeka pre nelekárské študijné odbory, Vydavateľstvo Osveta, 2010  
 Stefan Silbernagl, Agamemmn Despopoulos: Atlas fyziologie člověka, Vydavateľstvo Grada, 2004

Javorka K. a kol.: Lekárska fyziológia. Vydavateľstvo Martin Osveta, 2009

**Languages necessary to complete the course:**

Slovak language

**Notes:**

**Past grade distribution**

Total number of evaluated students: 402

A	ABS	B	C	D	E	FX
14,43	0,0	12,44	20,4	18,66	22,14	11,94

**Lecturers:** doc. MUDr. Tatiana Stankovičová, CSc., PharmDr. Eva Kráľová, PhD., PharmDr. Tomáš Rajtík, PhD., PharmDr. Zuzana Kiliánová, PhD., PharmDr. Attila Kulcsár, PhD., prof. PharmDr. Ján Klimas, PhD., MPH, PharmDr. Stanislava Kosírová, PhD., doc. PharmDr. Anna Paul Hrabovská, PhD.

**Last change:** 09.12.2021

**Approved by:** doc. PharmDr. Anna Paul Hrabovská, PhD.