

**Comenius University in Bratislava, Faculty of Medicine**

<b>Course unit information form</b>		
Code: L-VL-026	Course: <b>PHYSIOLOGY 2</b>	
Study branch: General Medicine		
Guaranteed by: ass. prof. I. Béder, MD, PhD.		Provided by: Institute of Physiology
Term of course unit: 2 <sup>nd</sup> class SS	Course format (lectures, seminars, practicals ....): Hours per course: 60 h lectures + 60 h practical lesson	Credits: 11
Prerequisites: Physiology 1		
Forms of study check and completion of course unit: Study evaluation during semester (e.g. test, essay ...): 30 % Final evaluation (e.g. examination, final paper ...): 70 %		
Aim of the course: Acquiring sound knowledge of cardiovascular physiology, body temperature regulation, renal physiology, endocrinology, sensory physiology and physiology of the central nervous system.		
Brief syllabus: Cardiovascular system - physiological properties of the cardiac muscle, cardiac cycle, heart sounds, arterial pulse, electrocardiography, regulation, blood flow in vessels, blood pressure, transcapillary exchange, lymph circulation, regional blood circulations. Thermoregulation - body temperature and its biorhythms, heat production and losses, mechanisms of thermoregulation. Kidneys - body fluids and their ion-structure, glomerular filtration rate and tubular processes, acid-base balance, formation of urine, regulation of renal functions. Endocrine glands - mechanisms of hormonal action, function of the hypothalamus - pituitary system, functions of hormones. Special senses - receptors, their classification and function, specialization of receptors, receptor potentials - vision, hearing, taste, olfaction, thermoreception, nociception. Physiology of central nervous system - sensation and perception, regulation of movements, higher nervous functions - memory, learning, speech.		
Recommended literature: Béder, I. et al.: Manual of Practical Physiology, Comenius University, Medical Faculty, Bratislava, 1998, 177 p. Berne, R. M., Levy M. N.: Principles of Physiology, 2 <sup>nd</sup> Ed. St. Louis, Mosby-Year Book 1996, 795 p. West, J. B. (ed.): Best and Taylor's Physiological Basis of Medical Practice, 12 <sup>th</sup> Ed. Baltimore, Williams and Wilkins 1990, 1170 p. Ganong, W. F.: Review of Medical Physiology, A Lange Medical Book. London, Prentice Hall 1995, 781 p. Guyton, A. C., Hall, J. E.: Human Physiology and Mechanisms of Disease, 6 <sup>th</sup> Ed. Philadelphia, W.B. Saunders Company 1996, 737 p. Despopoulos, A., Silbernagl, S.: Color Atlas of Physiology, 4 <sup>th</sup> Ed. Stuttgart, Thieme 1991, 379 p.		
Language of education: English		Signature of Guarantee: Updated on: 29.4.2005