

University: Comenius University in Bratislava	
Faculty: Faculty of Pharmacy	
Course Code: KFT/13-Mgr-A/20	Course Name: Systemic and Pathological Physiology
Type, Extent and Method of Educational Activities: lectures 2h/week, practicals 2h/week, per semester 28/0/28. Form of education – combination (attendance and distance)	
Number of Credits: 5	
Recommended Study Semester/Trimester: 3rd semester	
Study Level: I.II (master)	
Prerequisite Courses: none	
Conditions for Course Completion: Personal attendance at all lectures and practicals. to pass 2 scheduled tests, each minimally 60% rate, (<i>Evaluation (mark/success rate): A 91-100%, B 81-90%, C 71-80%, D 66-70%, E 60-65%, FX < 60%</i>). The final examtest is completed by students in computer or written form and by oral examination	
Results of Education: In the newly built subject, the student will get a comprehensive conception of the arrangement and activity of the human organism as a whole, about the functions of individual systems, regulatory, coordination and integration relationships between individual anatomical systems. Student will learn about pathophysiology at the systemic level in the context of basic pathophysiological principles leading to damage of the physiological functions of systems. Student will understand the causes, course, symptoms of pathological conditions and subsequent complications, which are a prerequisite for the study of pharmacology and clinically oriented disciplines. He will extended and completed the spectrum of diseases and syndromes from selected systems, in more detail way he will recognize new or experimentally detected pathomechanisms. Student will become oriented in the current knowledge, which he will use in other profile biomedically oriented subjects of pharmaceutical studies.	
Course Description: Function and pathophysiology of the central, peripheral somatic and autonomic nervous system, neurological and psychiatric diseases. Control, regulation and disorders of cardiac activity, blood circulation and pathophysiology of vascular diseases and blood. Physiology and pathophysiology of breathing and pulmonary ventilation, digestive tube, liver, gallbladder, pancreas. Formation and disorders of the regulation of endocrine glands. Physiology and pathophysiology of the reproductive system of a man and a woman, hormonal regulation and its disturbances. Pathophysiology of inflammatory diseases of the skin (exem, erythema, lupus, psoriasis, atopic dermatitis), allergic and autoimmune diseases. Pathophysiology of inflammatory and degenerative diseases of the joints, disorders of bone metabolism and inflammation. Infectious diseases caused by bacteria, viruses, riketsia, chlamydia, parasites, fungi, protozoa. Children's infectious diseases.	
Recommended Literature: Vander`s Human Physiology 12 th Ed, McGraw/Hill, Ed., NY, by EP Widmaier, H Raff, KT Strang, 2011, ISBN 978/0/07/122215/0 Essentials of Human Physiology for Pharmacy, CEC Press, 2008, by LK McCorry (e-version) Essentials of Pathophysiology, 3 rd edition, by C.M. Porth. Ed. Lippincott and Wilkins: Philadelphia, 2011, ISBN 0781770874 General and Systemic Pathology, 4 th edition, by J.C.E. Underwood. Ed. Churchill Livingstone: NY, 2004 ISBN 0443073341/9780443073342 Textbook of pathology, 7 th edition, by H. Mohan. Ed. Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, India, 2014, ISBN 978-9351523697 Essentials of Pathophysiology for Pharmacy, 1st edition, MM Zdanovicz, CRC Press, 2002, by ISBN 781587160363 (e-version) Pathophysiology, by I Hulín, Bratislava: Slovak Academis Press, 1997, ISBN 80-85665-90-5 Lecture and exercise materials are available in Moodle's online system	
Language Requirements: English	
Notes: Evaluation from previous year subject Pathology	
Course Evaluation: this is the new subject total number of students since the course introduction: 360 A – 7 %, B – 19 %, C – 49 %, D – 23 %, E – 1 %, Fx – 0 %	

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Approved by: prof. PharmDr. Ján Klimas, PhD., MPH; head of the department