

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Medicine	
Course ID: ULBL/ B-GM2/22	Course name: Biology 2
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 3 Per study period: 28 / 42 Course method: present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course: 2.	
Course level: I.II.	
Prerequisites: ULBL/B-GM1/09	
Conditions for course completion: All practical lessons (100%) are obligatory for all students. Assessment of the student's learning achievements is carried out as a combination of continuous monitoring of the study during the teaching part of the semester (40%) with the final examination for the period of the semester concerned (60%). Prerequisite for the final examination (to register for the final examination) is the acquirement of 20 points minimum from continuous assessments during the semester.	
Learning outcomes: To introduce the basic concepts of general biology and human genetics, including mutations and their role in pathogenesis in human diseases, Mendelian genetics, quantitative and population genetics. To give students a thorough grounding in the theoretical and practical foundations of basic genetics. Students have acquired an understanding of the major concepts in human and molecular genetics and have obtained basic information related to genetic and molecular biology methods in clinical practice.	
Brief outline of the course: Mutations I. - classification of mutations, mechanisms of mutagenesis, gene (point) mutations, structural and numerical chromosome mutations. Mendelian genetics - historical overview, general characteristics, Mendel's laws of inheritance. Quantitative genetics - polygenic inheritance, heritability, multifactorial diseases. Gene linkage. Heredity and sex. Genetics in pathogenesis of human diseases. Inheritance of blood group systems I. - ABO, Rh, MNss, Lewis, ... HLA system. Population genetics - Hardy-Weinberg law, population equilibrium, panmixis, inbreeding, genetic drift, eugenics, euphenics. Genealogy and genetic counselling. Genetics of cancer. Molecular biology methods in human genetics and clinical practice. Ethical issues in human genetics.	
Recommended literature: Židzik J. et al.: Medical Biology and Genetics. Second edition, Equilibria, 2015, 296 p. Mičková et al.: Biology: practical lessons. Second edition, Equilibria, 2020, 98 p.	
Course language: English	
Notes:	

Course assessment					
Total number of assessed students: 3384					
A	B	C	D	E	FX
10.11	13.24	18.71	20.24	27.48	10.22
Provides: prof. RNDr. Ján Šalagovič, PhD., RNDr. Helena Mičková, PhD., RNDr. Lucia Klimčáková, PhD., RNDr. Jozef Židzik, PhD., RNDr. Viera Habalová, PhD., doc. RNDr. Peter Solár, PhD., RNDr. Martina Šemeláková, PhD., RNDr. Eva Slabá, PhD.					
Date of last modification: 06.03.2023					
Approved:					