Course Information Sheet

Faculty: Faculty of Medicine Course code: GM 003A Course title: Medical Biology(1) Type, extent and method of educational activity: Number of hours per semester: 56 Lectures: 28/2 hours per week Practices:28/2 hours per week Practices:28/2 hours per week (fotal work load of the student is 125 h) Method of the education: full-time study (distance study) ¹ Form of the study: full-time Number of credits: 5 credits Recommended semester/trimester study: 1st Level of higher education study: 1. + 2. Level Prerequisite courses: Requirements for completion of the course: 80% participation at lectures, 100% participation at practices. Credit (written test); Final test: minimum threshold of success: 60%. Evaluation: A:95% -100K, B: 88% -94% C: 77% -87%, D: 66% -76%, E:60% -65% Student workload is 69 hours (preparation for practices, preparation of a presentation, preparation for the credit tests). Evaluatis students with current knowledge in cytology, molecular biology and genetics. Brief content of the course (syllabus): Intraduction to biology, hierarchy of living systems, cell theory, chemical composition of cells. Biomembranes, transport, receptors, cell to cell communication. Cellular organelles, morphology and function. Cytoskeleton and molecular motors. Structure of eukaryotic cell nucleuslevels of chromatin condensation, chromosome territories. Cell dowisin, mitosis, meiosis. Regulation						
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Language requirements: English						
Notes:						
The course runs in English language.						
Course assessment						
Assessed students in total: 0						
A B C D E FX						
0% 0% 0% 0% 0%						
Lecturers:						
RNDr. Katarína Volkovová, PhD.,						
Mgr. Veronika Šarayová						
Date of last modification: 05.11.2021						
Approved by: person responsible for realization, development and ensuring of the study program quality						
prof. MUDr. Iveta Šimková, CSc.						

Course Information Sheet

Higher education i	nstitution: Slovak	Medical University	ı in Bratislava			
Faculty: Faculty of Medicine						
Course code: GM 003B Course title: Medical Biology(2)						
Type, extent and method of educational activity:						
Number of hours per semester: 56						
Lectures: 28/2 hours per week						
Practices:28/2 hours per week						
(Total work load of the student is 150 h)						
Method of the education activity: full-time study(distance study)1						
Form of the study: full-time						
Number of credits						
Recommended semester/trimester study: 2nd						
Level of higher education study: 1. + 2. Level						
Prerequisite courses: Medical Biology (1)						
Requirements for completion of the course:						
80% participation at lectures, 100% participation at practices.						
Credit (written test); Final test: minimum threshold of success: 60%.						
Exam. A, B, C, D, E, FX						
Student workload is 94 hours (preparation for practices, preparation of a presentation, preparation for the						
credit tests, preparation for the exam).						
Learning outcomes:						
Acquaint students with current knowledge in cytology, molecular biology and genetics.						
Brief content of the course (syllabus):						
Nucleic acids, genetic information, replication. Transfer of genetic information, transcription, translation.						
Regulation of gene expression.						
HGP, human genome, repetitive DNA sequences.						
Genetic regulation of cellular differentiation, steam cells.						
Reactive oxygen species, antioxidants, oxidative stress. Mutagenesis, teratogenesis.						
Prokaryotes, viruses, prions.						
Basic laboratory techniques in molecular biology.						
Genetic methods, population genetics, monogenic inheritance. Blood groups, autosomal dominant and recessive						
inheritance, gonosomal inheritance, polygenic and multifactorial inheritance.						
Genetic engineering, recombinant DNA, vectors, gene therapy.						
Oncogenesis and molecular mechanisms of the most common forms of cancer.						
Recommended literature:						
1. Lectures.						
2. Cummings, M R: Human Heredity. ITP Company, New York, 1997						
3. Lodish et al.: Molecular Cell Biology, Eighth Edition © 2016 WH Freeman and Company.						
Language requirements:-						
Notes:						
The course runs in English language.						
Course assessment						
Assessed students in total: 0						
А	В	С	D	E	FX	
0%	0%	0%	0%	0%	0%	
Lecturers:						
RNDr. Katarína Volkovová, PhD.,						
Mgr. Veronika Sarayová						
Date of last modif	ication: 05.11.2021	!				
Approved by: person responsible for realization, development and ensuring of the study program quality						
prof. MUDr. Iveta Šimková, CSc.						