

Higher education institution: <i>Slovak Medical University in Bratislava</i>					
Faculty: <i>Faculty of Medicine</i>					
Course code: <i>GM 003A</i>			Course title: <i>Medical Biology(1)</i>		
Type, extent and method of educational activity: <i>Number of hours per semester:</i> <i>Lectures: 28/2 hours per week</i> <i>Practices:28/2 hours per week</i>					
Number of credits: <i>5 credits</i>					
Recommended semester/trimester study: <i>1. th</i>					
Level of higher education study: <i>1. + 2. level</i>					
Prerequisite courses:					
Requirements for completion of the course: <i>80% participation at lectures, 100% participation at practicals. Credit (written test). Final test from practices: minimum threshold of success: 60%. Evaluation: PH.</i> <i>Student's workload is 51 hours.</i>					
Learning outcomes: <i>Students will become acquainted with current knowledge of cytology, molecular biology and genetics.</i>					
Brief content of the course (syllabus): Introduction to biology, cell theory, chemical composition of living systems, biomembranes, receptors, cell to cell communication, transport. Cellular organelles, cytoskeleton. Types and shapes of cells, prokaryotes, viruses and priones. Nucleic acids, genetic information, spatial structure and types of DNA. Transfer of genetic information. Regulation of gene expression. Recombinant DNA techniques and vectors. Human genome. Structure of eukaryotic cell nucleus. Cell division, mitosis, meiosis, cell cycle. Regulation and deregulation of cell cycle in eukaryotic organisms. Chromosome aberrations.					
Recommended literature: <i>Cummings, M R: Human Heredity. ITP Company, New York, 1997</i> <i>Medical Cell Biology, Third edition, 2007</i>					
Language requirements:-					
Notes: <i>The course runs in Slovak and English language.</i>					
Course assessment Assessed students in total: 0					
A	B	C	D	E	FX
0%	0%	0%	0%	0%	0%
Lecturers: <i>RNDr. Katarína Volkovová, PhD., RNDr. Juraj Gašparovič, PhD., RNDr. Martin Sojka, PhD.</i> <i>Ing. Marta Staruchová, PhD., RNDr. Magdalena Barančoková, RNDr. Alena Kažimírová</i>					
Date of last modification: <i>12.07.2014</i>					
Supervised by: <i>prof. MUDr. Peter Šimko, CSc.</i>					

Course Information Sheet

Higher education institution: <i>Slovak Medical University in Bratislava</i>					
Faculty: <i>Faculty of Medicine</i>					
Course code: <i>GM 003B</i>			Course title: <i>Medical Biology(2)</i>		
Type, extent and method of educational activity: <i>Number of hours per semester:</i> <i>Lectures: 28/2 hours per week</i> <i>Practices:28/2 hours per week</i>					
Number of credits: <i>6 credits</i>					
Recommended semester/trimester study: <i>2. th</i>					
Level of higher education study: <i>1. + 2. level</i>					
Prerequisite courses: <i>Medical Biology (1)</i>					
Requirements for completion of the course: <i>80% participation at lectures and 100% participation at practicals. Final test from practices: minimum threshold of success: 60%. Evaluation: PH.</i> <i>Exam consisting of written test: minimum threshold of success: 70% and oral exam. Evaluation: A: 95 % - 100 %, B:88 % - 94 %, C: 77 % - 87 %, D: 66 % - 76 %, E: 60 % - 65 %</i> <i>Exam. Overall evaluation A, B, C, D, E, Fx. Minimum threshold of success: E.</i> <i>Student's workload is 51 hours.</i>					
Learning outcomes: <i>Students will become acquainted with current knowledge of cytology, molecular biology and genetics.</i>					
Brief content of the course (syllabus): Basic laboratory techniques in molecular biology, cell and tissue cultures. Cell death (necrosis, apoptosis, cellular aging). Gametogenesis. Fertilization. Genetic regulation of ontogenesis. Human genetics: Mendelian laws. Types of heredity. Interactions among genes. Gonosomes. Genetic linkage. Extranuclear heredity. Population genetics. Mutagenesis and teratogenesis. Oncogenesis and molecular pathogenesis of the most common forms of cancer. Viruses and oncogenesis. Oxidative stress.					
Recommended literature: <i>Cummings, M R: Human Heredity. ITP Company, New York, 1997</i> <i>Medical Cell Biology, Third edition, 2007</i>					
Language requirements:-					
Notes: <i>The course runs in Slovak and English language.</i>					
Course assessment Assessed students in total: 0					
A	B	C	D	E	FX
0%	0%	0%	0%	0%	0%
Lecturers: <i>RNDr. Katarína Volkovová, PhD., RNDr. Juraj Gašparovič, PhD., RNDr. Martin Sojka, PhD.</i> <i>Ing. Marta Staruchová, PhD., RNDr. Magdalena Barančoková, RNDr. Alena Kažimírová</i>					
Date of last modification: <i>12.07.2016</i>					
Supervised by: <i>prof. MUDr. Peter Šimko, CSc.</i>					