

<b>General Information</b>			
<b>Course name and code</b>	<b>Cytogenetics and Karyology ÚBEV/CK1/03</b>	<b>ECTS Credits</b>	<b>4</b>
		<b>Semester</b>	<b>2nd (Summer) Master &amp; Doctoral Degree</b>
<b>Aims</b>			
To gain knowledge and experience in genetic processes at the cell level using the newest scientific findings of cytogenetics and molecular cytology. To get acquainted in detail with the results coming from human genome mapping.			
<b>Contents</b>			
Organisation of eukaryotic genome. Nuclear skeleton. Nucleolus, nucleolar skeleton. Chromatin structure and changes of chromatin. Levels of DNA organisation in cell nucleus. Chromosomes. Polythene chromosomes. Cell cycle. Genetic regulation of a cell cycle. Genetic regulation of cell differentiation. Apoptosis. Telomeres and function of telomerase. Molecular cytology. Basic characteristics of the Human genom project - what we can learn from it?			
<b>Assessment Methods and Criteria</b>			
Written tests, protocols, oral examination.			
Grading Scale (in %): A ... 100 - 91%, B ... 90 - 81%, C ... 80 - 71%, D ... 70 - 61%, E ... 60 - 51%, Fx ... < 51%			
Grading System: The University recognises the following six degrees for the evaluation of the study results:			
a) A – excellent (excellent results) (numerical value 1)			
b) B – very good (above average results) (1.5)			
c) C – good (average results) (2)			
d) D – satisfactory (acceptable results) (2.5)			
e) E – sufficient (results meet the minimum criteria) (3)			
f) FX –failed (requires further work) (4)			
<b>Bibliography</b>			
Russel, J.P.: Genetics, Third Edition, Harper Collins Publisher, New York 1992 Periodicals. Internet sources.			