

General Information			
Course name and code	Cytogenetics and Karyology ÚBEV/CK1/03	ECTS Credits	4
		Semester	2nd (Summer) Master & Doctoral Degree
Aims			
<p>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.</p>			
Contents			
<p>Organisation of eukaryotic genome. Nuclear skeleton. Nucleolus, nucleolar skeleton. Chromatin structure and changes of chromatin. Levels of DNA organisation in cell nucleus. Chromosomes. Polytene 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 genome project - what we can learn from it?</p>			
Evaluation			
<p>Written tests, protocols, oral examination.</p>			
Bibliography			
<p>Russel, J.P.: Genetics, Third Edition, Harper Collins Publisher, New York 1992 Periodicals. Internet sources.</p>			