

General Information			
Course name and code	General microbiology and virology ÚBEV/MKV/15	ECTS Credits	5
		Semester	1st (Winter) Bachelor Degree
Aims			
<p>Students will obtain a basic informations on viruses, prokaryotic and eukaryotic microorganisms, their cytology, physiology, genetics, ecology, classification, and importance. Information on basic methods for studying microorganisms will be provided.</p>			
Contents			
<p>Microbiology as a biological science. History of microbiology. Prokaryotic and eukaryotic microorganisms, systematics, physiology, genetics, and metabolism of microorganisms. Methods for microorganisms study. Basic techniques in microbiology laboratory. Bacteriology, cytology, morphology, and reproduction of bacteria. Eukaryotic microorganisms, micromycetes. Microorganisms and environment, water, soil, and air microbiology. Natural cycles of elements. Symbiotic relationships between micro- and macroorganisms. Important microbial diseases. Regulation of growth of microorganisms, antibiotics. Applied microbiology. Basis of virology, classification and architecture of viruses. Interactions between viruses and host cells. Plant and animal viruses, bacteriophages, sub-viral agents: viroids, prions.</p>			
Assessment Methods and Criteria			
<p>Attendance of practicals (at least 90%), 2 written examinations during semester, final oral examination.</p> <p>Grading Scale (in %): A... 100 - 91%, B ... 90 - 81%, C ... 80 - 71%, D ... 70 - 61%, E ... 60 - 51%, Fx ... < 51%</p> <p>Grading System: The University recognises the following six degrees for the evaluation of the study results:</p> <ul style="list-style-type: none"> 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) 			
Bibliography			
<ol style="list-style-type: none"> 1. Madigan, MT, et al. Brock's Biology of Microorganisms. Prentice Hall College Div; 1996 2. Prescott, LM, et al. Microbiology. Wm. C. Brown Publishers, 1996 3. Pepper, LI et al., Environmental Microbiology (Second Edition). Elsevier, 2009 			