

Module name:		Veterinary microbiology 1
ECTS:		5
Learning effects		Course outcomes:
Knowledge:	1	<p>Student knows the structure of bacteria, fungus and virus particles.</p> <p>Student knows organization of genetic material and its implication on virulence and chemotherapeutics resistance.</p> <p>Student understands the physiology of microbial growth including how this is influenced by changes in the local environment.</p> <p>Understands the continuum from microbial colonization to infection to disease. Be familiar with microbial virulency. Understands the role of microbes in health maintenance</p> <p>Knows of principals of antimicrobial function, understanding the specifics of antibiotic usage and how antibiotic resistance is acquired.</p> <p>Knows the scientific names of the most significant disease causing agents and the associated diseases.</p> <p>Understands the epidemiology of infectious diseases and the role of microbes in public health issues.</p>
Skills:	1	<p>Student follows safety rules for handling clinical or laboratory specimens containing pathogens; acquires skills to aseptically and properly process clinical specimens; performs and interprets microbiological tests; recognizes unique identifying characteristics of pathogens and names associated with the agent(s); has ability to perform and interpret antibiotic susceptibility test; is able to detect and identify microorganisms and determine of the epidemiologic links between isolates.</p>
Competences:	1	<p>Student explains importance of microbes and fungi for the animal health and welfare; detects and identifies microorganisms; determines the epidemiologic links between isolates.</p>
Objectives of the module required to obtain learning effects:		<p>The purpose of the veterinary microbiology module is to give the prospective veterinary surgeon adequate knowledge and skills that are applicable to veterinary medicine. Emphasis is placed on understanding the nature of infectious organisms, mechanisms by which they cause disease and how the host responds to infection. During the microbiology course -module 1, a student of the Faculty of Veterinary Medicine acquires basic knowledge about selected eukaryotic, prokaryotic and subcellular groups of pathogens for animals and humans. Students learn about the mechanisms of their pathogenic activity, isolation and identification methods.</p> <p>Veterinary medicine students are expected to learn the role of microbiota in health and disease, recognize the importance of biosecurity, public health threat posed by zoonotic diseases, and microbial contamination of food of animal origin. The program is designed to integrate bacteriology, mycology and virology. Also an opportunity is provided for student to practice basic laboratory techniques and procedures used in diagnostics of microbial disease. The course is designed to enable the student fulfil the national and EU educational requirements and achieve competence in veterinary microbiology.</p>
Assessment methods:		3 written or oral tests, evaluation of practical skills