

Jordan University of Science and Technology  
Faculty of Veterinary Medicine  
Department of Basic Veterinary Medical Sciences  
Second Semester 2013/2014

Course Information	
Course Title	Veterinary Bacteriology (two credit hours)
Course Number	VM 231
Prerequisites	Biology 101
Course Website	E. learning
Instructor	<b>Dr. Yaser Tarazi</b>
Office Location	G-3
Office Phone	22009
Office Hours	Monday : 11-12 Wednesday: 11-12
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Lab. Assistant	
Course Description and objectives	
Provide students with knowledge about Basic Microbiology, to become familiar with bacterial classification, morphology, structure, nutrition, metabolism and genetics. In addition to knowledge about antimicrobial agents, sterilization and disinfection, bacterial flora, bacterial ecology, pathogenicity, bacteriophages and biodiversity.	

Text Book	
Title 1	Essentials of Veterinary Microbiology
Title 2	<a href="#">Microbiology</a>
Author(s)	<a href="#">Prescott, Harley &amp; Klein</a>
Publisher	McGraw Hill
Year	2008
Edition	7 <sup>th</sup> ed.

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam	5-6 <sup>th</sup> weeks of the course, 2013	25%
Second Exam	10-11 <sup>th</sup> weeks of the course, 2013	25%
Assignments, quizzes, reports, attendance and participations	Through the course time	10%
Final Exam	January, 2014	40%

Teaching & Learning Methods
Theory: Face to face instruction and/or by using power-point, data show, figures and pictures for demonstrations from websites

Useful Resources
<ol style="list-style-type: none"> <li>1. Use of other microbiology text books available in the university library, especially Clinical Veterinary Microbiology text book, by <a href="#">Quinn et al., 1994</a> and Microbiology by <a href="#">Prescott, Harley &amp; Klein, 2007</a>.</li> <li>2. Use of the periodicals and microbiology internet sites.</li> </ol>

Course Content		
Week	Topics	Chapter & pages in title 2
1	Microbiology The Science What is microbiology? Why study microbiology Careers in microbiology First microorganisms on earth Earliest known infectious disease Pioneers in the science of microbiology	1 1-14
2	Introduction to Microscopy Kinds of microscopes	2 17-31
3	Procaryotes, eucaryotes and classification	3 39-78
4	Cell structure, taxonomy, and functions Procaryotic and Eucaryotic cell structure and functions	<u>3 39-73</u>

	Reproduction of procaryotic cells Taxonomy and Determining relatedness among organisms	
	<b>First Exam</b>	
5	Bacterial Nutrition	<u>5 101-118</u>
5	Movements of nutrients into the bacterial cells	
6	Microbial Growth	<u>6 119-148</u>
7	Bacterial Metabolism	9 191-210
8	Microbial Genetics and Mutation	11 247-276
	<b>Second Exam</b>	
9	Diversity of microorganisms Part 1: acellular and procaryotic microbes Categories of microorganisms Acellular infectious agents The domain bacteria and The domain archaea Part 2: bacteriophages, Fungi and Yeast	19 471-502
10	Sterilization and Disinfection	<u>7 149-166</u>
11	Antimicrobial Drugs Using antimicrobial agents to control- How antimicrobial agents work: Antibacterial agents Antifungal agents and Antiprotozoal agents Drug resistance Empirical therapy Undesirable effects of antimicrobial agents	<u>34 835-858</u>
12	Microbial ecology, Introduction Symbiotic relationships involving microorganisms Indigenous microflora of humans Beneficial and harmful roles of indigenous microflora Microbial communities Biotechnology and Bioremediation	Microbiology for the health sciences, by Gwendolyn R. W Burton Paul G. Engelkirk. 7 <sup>th</sup> edition
13	Bacterial pathogenicity and pathogenesis	33 815-834

Additional Notes	
Exams	Multiple choice, false and true, matching and short assay questions and quizzes are used
Cheating	Cheating students will be reported to the head of the department
Attendance	Its considered as a sort of participations, if attendance is out of university regulations then student will not set for final exam
Graded Exams	First, mid-practical, second and final
Participation	Discussion during the lectures and answers questions are considered
Laboratory	Each student should be dress a white coat, be in time in the lab, no kidding, talking, drinking or feeding during the lab. session, works according to the instructions
Projects	No project at this level