

Departemen of Microbiology
Veterinary Bacteriology and Mycology Module

Modul name	Veterinary Bacteriology and Mycology
Modul level	Bachelor
Abbreviation,if applicable:	KHU 2081
Sub-heading, if applicable:	n/a
Courses included in the module, if applicable:	Course in Veterinary Bacteriology and Mycology (2 credits)
Semester/term:	3 th /year 2
Module coordinator(s):	Prof. Dr. drh. A. E. T. H. Wahyuni, M.Si
Lecturer(s):	Prof. drh. Widya Asmara, S.U., Ph.D Dr.drh. Surya Amanu, S.U Prof. Dr.drh. A.E.T.H. Wahyuni, M.Si Dr.drh. Tri Untari., M.Si Dr.drh. M. Haryadi Wibowo, M.P drh. Sidna Artanto, M. Biotech.
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory course
Teaching format/class hours per week during the semester	<ol style="list-style-type: none"> 1. Two hours class per week during a semester (14 weeks) 2. Two hours per week of laboratory work during 6 weeks 3. Four hours of Focus Group Discussion (FGD) sessions per week during 4 weeks.
Workload	<ol style="list-style-type: none"> 1. Two hours lecture with 1 hour structural activities per week during a semester (14 weeks) 2. Two hours per week of laboratory work mentoring 3. Eight hours FGD tutorial <p style="text-align: center;">Total 92 hours/semester</p>
Credit Points:	3 credits
Requirements:	Veterinary Biochemistry
Learning goals/competencies:	<p>a. Knowledge</p> <ol style="list-style-type: none"> 1. Understand the basic history of Microbiology, how to examine, isolate, and characterize common pathogenic bacteria and fungi 2. Recognize the development of microbes and understand the structure and organization of bacterial and fungal cells, understand the growth phase and the factors that influence it. 3. Understand how to enumerate, control bacterial growth and know about bacterial DNA and the processes involved.

	<p>4. Recognize and understand the infection process.</p> <p>b. Analysis skills of :</p> <ol style="list-style-type: none"> 1. Have the ability for doing isolation and identification of common pathogenic bacteria and fungi. 2. Have great skill in bacterial enumeration and controlling. 3. Have great skill in handling infectious process <p>c. Practical skill of :</p> <ol style="list-style-type: none"> 1. Bacterial and fungal isolation and characterization. 2. Bacterial enumeration and control. <p>d. Managerial skill and knowledge transfer</p> <ol style="list-style-type: none"> 1. Capable of arranging and writing a laboratory report based on factual data 2. Capable of collaborating work of team/group <p>e. Attitude</p> <ol style="list-style-type: none"> 1. Have curiosity and enthusiasm to topic of each subject 2. Have attitude establishment and ability to conclude in collegial discussion. 3. Active in class and discussion sessions and reflect discipline.
<p>Content:</p>	<p>The course contents are :</p> <p>Introduction; methods of studying microbes; microbes systematics; bacterial structures and organization; basic principles of mycology; bacterial growth and multiplication; bacterial enumeration; bacterial controlling; bacterial chromosome; transformation, transduction, conjugation; bacterial evolution, mutation, recombination, gene repairing; basic principles of bacterial pathogenesis.</p>

<p>Study/exam achievements:</p>	<p>Students are considered to be competent and pass if comply the 75% of lectures attendance, practicum and FGD requirements as stated in department and academic rules.</p> <p>Examination score : Final exam 1 + final exam 2 ----- 2</p> <p>Total score : 2 (eximination score) + practicum score ----- 3</p> <p>Final score : 85% (Total score) + 15% (FGD score)</p> <p>Final index :</p> <p>A: 100>NA≥75 AB: 75>NA≥68 B: 68>NA≥60 BC: 60>NA≥55 C: 55>NA≥50 D: 50>NA≥45 E: NA<45 (absolute score) NB= if absolute score cannot be applied, the calculation with relative score will be conducted.</p>
<p>Literature:</p>	<ol style="list-style-type: none"> 1. Tortora G.J., Funke B.R., Case C.L. 2007. Microbiology an Introduction 9th ed. San Fransisco, USA, Pearson International Edition. Tortora Funke Case. 2. Holt J.G. 1994. Bergey,s Manual of Determinative Bacteriology. 9th ed. 3. Madigan M.T., Martinko J.M., Parker J. 2000. Brock Biology of Microorganism. 9th ed. Prentice_Hall, Inc. 4. Black J.G. 1999. Microbiology Principles and Exploration. 4th. New York, USA. 5. Carlton L.B., Charles O.T. 1993. Pathogenesis of Bacterial Infections in Animals. Iowa State University Press.
<p>Notes</p>	