AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
VETERINARY MICROBIOLOGY
MICROBIOLOGY
MICROBIOLOGY (VETERINARY) MASTER'S WITHOUT THESIS
COURSE INFORMATION FORM

Course Title	Morphologia of Bacteria						
Course Code		MİK501		Couse Level	Second Cycle (Master's Degree)		
ECTS Credit	4	Workload	99 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The objective of this course is to give information about bacteria cell components, nucleus, and reproduction characteristics and to provide the ability to use this information.						
Course Content	The internal and external anatomical structure of bacteria, microscopical and macroscopical morphologia of bacteria, ordering and determination of the bacterial sizes. The inorganic and organic materials which provide nutrition for bacteria, the growth properties of bacteria in liquid and solid media, the classification of bacteria based on the effect of O2, anaerobiosis and symbiosis. The chemical structure of bacteria, their pigments, enzymes and energy metabolisms.						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study						
Name of Lecturer(s)	Assoc. Prof. Uğur PARIN, Prof. Şükrü KIRKAN						

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Quiz	2	10
Assignment	4	10

Recommended or Required Reading

1	Koneman's Color Atlas and Textbook of Diagnostic Microbiology
2	Bergey's manual of systematic bacteriology
3	Handbook of Microbiological Media, 4º Edition
4	Veterinary Bacteriology
5	Temel Mikrobiyoloji

Week	Weekly Detailed Course Contents	
1	Theoretical	Inner and outer anatomical structures of bacteria
2	Theoretical	Microscopic morphology of bacteria
3	Theoretical	Macroscopic morphology of bacteria
4	Theoretical	Determination of the sizes and stages of bacteria
5	Theoretical	Inorganic components which influence the growth of bactreia
6	Theoretical	Organic components which influence the growth of bactreia
7	Theoretical	Growth of bacteria in liquid media
8	Intermediate Exam	Midterm Examination
9	Theoretical	Growth of bacteria in solid media
10	Theoretical	Classification of bacteria according to the effects of oxygen
11	Theoretical	Anaerobiosis
12	Theoretical	Mutual living of bacteria
13	Theoretical	Chemical structures of bacteria
14	Theoretical	Pigments, enzymes, and energy metabolism of bacteria
15	Theoretical	Discussion

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	4	2	1	12
Laboratory	14	0	1	14

Quiz	1	10	1	11
Midterm Examination	1	10	2	12
Final Examination	1	20	2	22
			Total Workload (Hours)	99
			[Total Workload (Hours) / 25*] = **ECTS**	4
25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	1. To be able to define bacterial cells.
2	2. To be able to distinguish bacterial cell sizes.
3	3. To be able to name basic bacterial cell components
4	4. To be able to explain reproduction of bacterial cell
5	5. To be able to use the necessary information.

Programme Outcomes *(Microbiology (Veterinary) Master's Without Thesis)*

1	Department has the ability to identify and apply information about bacteriology, virology, mycology and has the ability to recognize diseases about veterinary medicine
2	Department has the ability to take the advantage of technology and has the ability to diagnose, treat and prevent the diseases by using appropriate equipments
3	Department has the ability to analyze the epidemiological compounds of an animal population and has the ability to get precautions.
4	Department has the ability to test or analyze the diseases and has the ability to evaluate the results.
5	Department has the ability to perform, produce and conclude projects for scientific researches.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	4	4	4	5	5
P2	5	4	4	5	5
P3	4	4	4	4	4
P4	5	5	5	5	5
P5	5	5	5	5	5