



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

Course Title	Bacterial Virulence Factors								
Course Code	MİK549	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The objective of this course is to give information about bacterial virulence factors.								
Course Content	Identification of virulence; virulence factors in bacteria; the activity of capsule, spore and coagulase; enzymatic factors; endo- and exotoxins; antiphagocytic activity; decreasing and increasing of virulence; measurement of virulence								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Case Study								
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Koneman's Color Atlas and Textbook of Diagnostic Microbiology
2	Bergey's manual of systematic bacteriology
3	Concise Review of Veterinary Microbiology
4	Temel Mikrobiyoloji

Week	Weekly Detailed Course Contents	
1	Theoretical	Identification of virulence
2	Theoretical	Virulence factors of bacteria
3	Theoretical	Virulence factors of bacteria
4	Theoretical	Capsule
6	Theoretical	Coagulase activity
7	Theoretical	Enzymatic factors
8	Intermediate Exam	Midterm Examination
9	Theoretical	Exotoxins
10	Theoretical	Endotoxins
11	Theoretical	Antiphagocytic activity
12	Theoretical	Reduction of virulence
13	Theoretical	Increase of virulence
14	Theoretical	Measurement of virulence
15	Theoretical	Discussion

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	2	1	1	4
Quiz	2	1	1	4
Midterm Examination	1	5	2	7



Final Examination	1	5	2	7
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	1. To be able to identify virulence
2	2. To be able to name virulence factors of bacteria
3	3. To be able to measure virulence
4	4. To be able to use the necessary information
5	To have information about virulence genes.

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	5	5	5	5	4
P2	3	5	5	5	4
P3	4	4	4	4	5
P4	5	5	5	5	5
P5	3	3	3	3	3

