



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Resistance to Antibiotics and Antibigram Tests							
Course Code		MİK527		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 ( <i>Hours</i> )	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The objective of this course is to give information about antibiotic susceptibility tests.							
Course Content		Determination of invitro infective agent sensitivity to antibiotics using dilution and no disc diffusion (dry and wet) techniques. Preparation of bacterial culture to be tested, choosing discs and determination of bacterial inhibition zones using antibiotic sensitivity tests following reproduction. Bacterial resistance to antibiotics. Application techniques of Kirby Bauer Disc diffusion method.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study					
Name of Lecturer(s)		Lec. Hafize Tuğba YÜKSEL DOLGUN							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	1	20

### Recommended or Required Reading

1	Koneman's Color Atlas and Textbook of Diagnostic Microbiology
2	Bergey's manual of systematic bacteriology
3	Battling Resistance to Antibiotics and Pesticides: An Economic Approach
4	Handbook of Microbiological Media, 4 <sup>o</sup> Edition
5	Temel Mikrobiyoloji

Week	Weekly Detailed Course Contents	
1	Theoretical	Dilution method
2	Theoretical	Disc diffusion method
3	Theoretical	Preparing bacterial culture for test
4	Theoretical	Preparing bacterial culture for test
5	Theoretical	Choosing antibiotic disc
6	Theoretical	Choosing antibiotic disc
7	Theoretical	Evaluation of zone diameter
8	Intermediate Exam	Midterm Examination
9	Theoretical	Evaluation of zone diameter
10	Theoretical	Bacterial resistance to antibiotics
11	Theoretical	Bacterial resistance to antibiotics
12	Theoretical	Application techniques of Kirby Bauer disc diffusion method
13	Theoretical	Application techniques of Kirby Bauer disc diffusion method
14	Theoretical	Application techniques of Kirby Bauer disc diffusion method
15	Theoretical	Discussion

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	2	0	3	6
Reading	2	0	25	50
Quiz	1	1	1	2
Midterm Examination	1	4	1	5



Final Examination	1	5	1	6
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = <b>ECTS</b>				5
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	1. To be able to define antibiotic susceptibility tests
2	2. To be able to prepare bacterial cultures for antibiotic susceptibility tests
3	3. To be able to use the necessary information
4	Disc diffusion tests
5	MIC tests

### Programme Outcomes (Microbiology (Veterinary Medicine) Master)

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
6	Department has the ability to donate theoretical and practical knowledge about postgraduate students in the area of microbiology.
7	Graduate students has the ability to perform 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	4	4
P2	5	4	4	4	4
P3	5	4	4	4	4
P4	5	5	4	4	4
P5	4	5	4	5	5
P6	4	3	5	5	4
P7	4	5	3	4	3

