



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

Course Title	Environmental Microbiology								
Course Code	MİK530	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	3	Workload	79 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The objective of this course is to give information about special laboratory applications.								
Course Content	Transmission of infectious diseases in soil (meadows, fields, and pastureland). The resilience of sporophyte microorganisms in soil. Transmission of infections in closed environments (stables and pens etc). Transmission of infections with changing climax and geographical features. Transmission of infection with air and water. Hygiene of air, water and environment. Precautions to be taken in order to prevent microbial environmental pollution. Techniques of destroying contaminated material.								
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	40	
Quiz	1	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	Encyclopedia of Grain Science - Vol 1, 2 y 3
4	Food Security and Soil Quality (Advances in Soil Science)
5	Temel Mikrobiyoloji
6	Water Quality - Guidelines, Standards and Health

Week	Weekly Detailed Course Contents	
1	Theoretical	Transmission of infectious diseases in soil (meadows and pasturelands etc.)
2	Theoretical	Transmission of infectious diseases in soil (meadows and pasturelands etc.)
3	Theoretical	Transmission of infections in closed environments (stables and pens etc).
4	Theoretical	Transmission of infections in closed environments (stables and pens etc).
5	Theoretical	Transmission of infectious diseases according to climate conditions
6	Theoretical	Transmission of infectious diseases according to climate conditions
7	Theoretical	Transmission of infectious diseases according to climate conditions
8	Intermediate Exam	Midterm Examination
9	Theoretical	Transmission of infectious diseases according to geographical features
10	Theoretical	Transmission of infectious diseases according to geographical features
11	Theoretical	Transmission of infectious diseases with air and water
12	Theoretical	Transmission of infectious diseases with air and water
13	Theoretical	Precautions to be taken in order to prevent microbial environmental pollution.
14	Theoretical	Destruction techniques of contaminated material
15	Theoretical	Discussion

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	2	1	2	6
Laboratory	14	0	2	28



Quiz	1	4	1	5
Midterm Examination	1	4	1	5
Final Examination	1	6	1	7
Total Workload (Hours)				79
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	1. To be able to define environmental microbiology
2	2. To be able to explain the link between climate conditions and transmission of infectious diseases
3	3. To be able to describe prevention of pollution
4	4. To be able to use the necessary information
5	interrelation with microbiology and environment

### 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	4	4	4	5
P2	4	4	4	5	5
P3	4	5	4	5	4
P4	5	4	5	5	5
P5	4	5	5	4	5

