



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

Course Title	Microbiological Stains and Special Staining Techniques								
Course Code	MİK503	Course Level		Second Cycle (Master's Degree)					
ECTS Credit	4	Workload	100 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The objective of this course is to give information about different staining methods used in microbiology.								
Course Content	The stains used in microbiology and their classification. The classification of staining methods. Gram staining method, Tuberculosis staining method, capsule staining method, Flagella staining method, Lipid staining method, Rickettsia staining method, spore staining method. The preparation of staining solutions.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study								
Name of Lecturer(s)	Assoc. Prof. Uğur PARIN, Prof. Kadir Serdar DİKER								

#### 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	Collins and Lyne's Microbiological Methods 8th Edition
4	Temel Mikrobiyoloji

Week	Weekly Detailed Course Contents	
1	Theoretical	Staining species in microbiology
2	Theoretical	Classification of staining species used in microbiology
3	Theoretical	Classification of staining methods used in microbiology
4	Theoretical	Classification of staining methods used in microbiology
5	Theoretical	Gram's Staining method
6	Theoretical	Gram's Staining method
7	Theoretical	Tuberculosis staining methods
8	Intermediate Exam	Midterm Examination
9	Theoretical	Tuberculosis staining methods
10	Theoretical	Capsule staining methods
11	Theoretical	Flagella staining methods
12	Theoretical	Lipid staining methods
13	Theoretical	Spore staining methods
14	Theoretical	Rickettsia staining methods. Staining solutions and their preparations
15	Theoretical	Discussion

#### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	4	1	1	8
Laboratory	14	0	2	28
Quiz	2	1	1	4



Midterm Examination	1	1	1	2
Final Examination	1	1	1	2
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	1. To be able to list different staining methods used in microbiology
2	2. To be able to classify staining methods
3	3. To be able to prepare staining solutions
4	4. To be able to use the necessary information
5	Lecture

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

