



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Special Laboratory Applications								
Course Code	MİK529		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	5	Workload	125 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The objective of this course is to give information about special laboratory applications.								
Course Content	ELISA (Enzyme linked immunosorbent assay), RIA (Radioimmunoassay), CFT (Complement fixation test), hemagglutination, hemagglutination inhibition, immunodiffusion (Agar Gel Precipitation, immunoelectrophoresis, zone electrophoresis), immunohistochemical techniques (direct and indirect immunofluorescence). Immunofluorescence technique. Diagnosis of listeria, legionella, Rabies, streptococcus and chlamydia.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study								
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Assignment	2	10
Quiz	2	10
Midterm Examination	1	20
Final Examination	1	40

Recommended or Required Reading

1	Koneman's Color Atlas and Textbook of Diagnostic Microbiology
2	Bergey's manual of systematic bacteriology
3	Handbook of Vertebrate Immunology
4	Veterinary Laboratory Medicine
5	The ELISA Guidebook
6	Temel Mikrobiyoloji
7	İmmunoloji

Week Weekly Detailed Course Contents & Teaching Methods

1	Theoretical & Practice	Enzyme Linked Immunosorbent Assay test
2	Theoretical & Practice	Radio Immuno Assay test
3	Theoretical & Practice	Complement fixation test
4	Theoretical & Practice	Hemagglutination test
5	Theoretical & Practice	Hemagglutination inhibition test
6	Theoretical & Practice	Agar-gel precipitation test
7	Theoretical & Practice	Immunoelectrophoresis
8	Theoretical & Practice	Discussion
9	Theoretical & Practice	Direct and indirect immunofluorescence test
10	Theoretical & Practice	Immunofluorescence techniques
11	Theoretical & Practice	Diagnosing Listeria infections
12	Theoretical & Practice	Diagnosing Legionella infections
13	Theoretical & Practice	Diagnosing Rabies infections
14	Theoretical & Practice	Diagnosing Streptococcus and Chlamydia infections

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	2	4	2	12
Laboratory	14	0	1	14
Reading	1	0	25	25



Quiz	2	1	1	4
Midterm Examination	1	5	1	6
Final Examination	1	7	1	8
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	1. To be able to define special laboratory applications
2	2. To be able to define ELISA, RIA and CF tests
3	3. To be able to define hemagglutination, hemagglutination inhibition, immunodiffusion tests
4	4. To be able to name immunohistochemical techniques
5	5. To be able to define the diagnoses of Listeria, Legionella, Rabies, Streptococcus infections
6	6. To be able to use the necessary information

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 are 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	L6
P1	5	5	4	4	5	4
P2	4	4	4	4	4	5
P3	5	4	4	4	4	5
P4	4	4	4	4	5	4
P5	4	5	5	5	4	4
P6	4	4	4	4	5	4
P7	5	5	5	5	4	5

