



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Immunology of the Fish								
Course Code	MİK662		Course Level		Third Cycle (Doctorate Degree)				
ECTS Credit	2	Workload	48 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The objective of this course is to give information about Immunology of the Fish.								
Course Content	Lymphoid organs and lymphocytes of the fish, antigen specific receptors, major histocompatibility complex (MHC), immunobiology of B and T cells, immune response development in the fish, tumor immunology of fish.								
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 (%)
Assignment	4	20
Quiz	2	20
Midterm Examination	1	20
Final Examination	1	40

Recommended or Required Reading	
1	Veteriner Bakteriyoloji

Week	Weekly Detailed Course Contents & Teaching Methods	
1	Theoretical	Lymphoid organs and lymphocytes of the fish
2	Theoretical	Lymphoid organs and lymphocytes of the fish
3	Theoretical	Antigen specific receptors
4	Theoretical	Antigen specific receptors
5	Theoretical	Major histocompatibility complex (MHC)
6	Theoretical	Major histocompatibility complex (MHC)
7	Theoretical	Immunobiology of B and T cells
8	Theoretical	Discussion
9	Theoretical	Immunobiology of B and T cells
10	Theoretical	Immune response development in the fish
11	Theoretical	Immune response development in the fish
12	Theoretical	Immune response development in the fish
13	Theoretical	Tumor immunology of fish
14	Theoretical	Tumor immunology of fish

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	4	0	1	4
Laboratory	14	0	0.5	7
Quiz	2	2	0.5	5
Midterm Examination	1	1	1	2
Final Examination	1	1	1	2
Total Workload (Hours)				48
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	1. Having information about Immunology of the Fish
2	2. To have information about the immune system cells in fish
3	3. To have information about the immune system organs in fish
4	4. To have information about the immune system diseases in fish
5	5. Providing ability to use these informations

Programme Outcomes (Microbiology (Veterinary Medicine) Doctorate)

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

