AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Molecular Diagnostic Methods in Parasitology								
Course Code	VPR675		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	2	Workload	49 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Molecular methods used in the diagnosis of helminths, arthropods and protozoa that cause diseases in pets and humans, teaching the application areas and giving them the application skills								
Course Content	Structure and function of the cell, macromolecules of the cell, structure and functions of DNA, RNA and proteins, molecular diagnostic methods and their uses, gene manipulations, cloning, rekombinant DNA teknolojileri, biyoinformatik yöntemler ve kullanım alanları								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Quiz	2	10
Assignment	2	10

Recommended or Required Reading	
1	Turner P.C., McLennan A.G., Bates A.A., White M.R.H. (2000). Molecular Biology. BIOS Scientific PublishersLTd., Second Edition, UK
2	Brown T.A. (1998). Molecular Biology LabFax: I. Recombinant DNA. Academic Press, Second Edition, USA
3	Brown T.A. (1998). Molecular Biology LabFax: II. Gene Analysis. Academic Press, Second Edition, USA
4	Higgins D., Taylor W. (2000). Bioinformatics: Sequence, Structure and Databanks. Oxford Univ. press, Second Edition, UK
5	Yıldırım A., Bardakçı, F, Karakaş M., Tanyaloç B. (2007). Molecular Biology. Nobel press, Ankara (Turkish)

Week	Weekly Detailed Course Contents	
1	Theoretical	Cell, macromolecules of the cell, structure and synthesis of proteins, properties of nucleic acids
2	Theoretical	Structure and synthesis of proteins
3	Theoretical	Properties of nucleic acids, prokaryotic and eukaryotic chromosome structure
4	Theoretical	Replication, damage, repair and recombination of DNA
5	Theoretical	Gene manipulation, cloning vectors and their analysis, their using areas, gene libraries, investigation of gene libraries
6	Theoretical	Recombinant DNA technology
7	Theoretical	Nucleic acid analysis techniques
8	Intermediate Exam	Midterm Exam
9	Theoretical	Nucleic acid analysis techniques
10	Theoretical	Nucleic acid analysis techniques
11	Theoretical	Protein analysis techniques
12	Theoretical	Protein analysis techniques
14	Theoretical	Bioinformatics methods
15	Theoretical	Areas of bioinformatics methods
16	Final Exam	Final exam
17	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Assignment	1	5	0	5

Midterm Examination	1	5	1	6
Final Examination	1	9	1	10
			Total Workload (Hours)	49
			[Total Workload (Hours) / 25*] = **ECTS**	2
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To learn the general principles of molecular diagnostic methods
2	To learn the application areas of molecular diagnostic methods
3	To learn to compare molecular diagnostic methods
4	To learn the importance of molecular diagnostic methods in parasitology
5	To know the difference of molecular diagnostic methods from other diagnostic methods

Programme Outcomes *(Parasitology (Veterinary Medicine) Doctorate)*	
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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	4	5
P2	5	5	5	5	5
P3	5	3	4	5	4
P4	5	4	5	5	5
P5	1	2	5	5	5
P6	2	2	2	4	2
P7	5	5	5	5	5
P8	5	5	5	5	5
P9	3	5	3	5	5
P10	3	2	2	2	4
P11	5	5	5	5	5
P12	2	2	5	5	5