AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
MEDICAL BIOLOGY
MEDICAL BIOLOGY
MEDICAL BIOLOGY MASTER
COURSE INFORMATION FORM

Course Title	PCR Analyses and Medical Applications								
Course Code	TIB531		Couse Level		Second Cycle (Master's Degree)				
ECTS Credit	6	Workload	155 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course									
Course Content									
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation)								
Name of Lecturer(s)	Assoc. Prof. Mehtap KILIÇ EREN								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	1. NCBI Pubmed ve güncel bilimsel yayınlar
2	2. PCR Protocols (Vol. 226). Methods in Molecular Biology, John M.S. Bartlett and David Stirling (2003)

Week	Weekly Detailed Course Contents	
1	Theoretical	The structure of genes
2	Theoretical	The principles of Polymerase Chain Reaction
3	Theoretical	The principles and ways of primer design
4	Theoretical	The primer design applications using the web-based programmes
5	Theoretical	Direct and indirect mutation analysis techniques based on PCR (SSCP, HA, DHPLC, HRM, RFLP, ASA etc.)
6	Practice	PCR application
7	Practice	PCR optimisation
8	Intermediate Exam	Midterm Exam
9	Practice	Real Time PCR analysis
10	Practice	The medical application of PCR
11	Practice	DNA Footprinting
12	Practice	Paternity Exclusion Test
13	Practice	Diagnosis of genetic diseases
14	Practice	Cloning
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	3	2	65
Lecture - Practice	13	4	2	78
Midterm Examination	1	4	2	6
Final Examination	1	4	2	6
			Total Workload (Hours)	155
			[Total Workload (Hours) / 25*] = **ECTS**	6
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	
2	

3	
4	
5	

Programme Outcomes *(Medical Biology Master)*	
1	To acquire fundamental knowledge on medical biology field
2	To gain expertise on molecular biology techniques
3	To utilize molecular biology techniques
4	To be able to construct and conduct a research project
5	To be able to follow and interpret scientific advancements

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	2	2	2	2
P2	1	5	5	1	5
P3	1	5	5	1	5
P4	1	1	1	1	2
P5	3	3	3	5	3