



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Advanced Molecular Biology Techniques							
Course Code		TIB604		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	151 ( <i>Hours</i> )	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)		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. The Cell: A molecular Approach , Geoffrey M. Copper
2	2. Molecular Cell Biology, Lodish, WH Freeman and Company
3	3. Molecular Biology of the Cell, Alberts, Garland Science

Week	Weekly Detailed Course Contents	
1	Theoretical	Understanding the use of molecular techniques o study gene and protein functions.
2	Theoretical	Gene and protein fonctions
3	Theoretical	RNA purification techniques
4	Theoretical	Protein purification techniques
5	Theoretical	PCR
6	Theoretical	Real-time PCR
7	Theoretical	Real-time PCR
8	Intermediate Exam	Mid term exam
9	Theoretical	Western Blot
10	Theoretical	Southern blot
11	Theoretical	Northern Blot
12	Theoretical	Topics will be drawn from the current literature and ongoing research in molecular biology.
13	Theoretical	Topics will be drawn from the current literature and ongoing research in molecular biology.
14	Theoretical	Topics will be drawn from the current literature and ongoing research in molecular biology
15	Final Exam	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	5	2	91
Lecture - Practice	13	2	2	52
Midterm Examination	1	2	2	4
Final Examination	1	2	2	4
Total Workload (Hours)				151
[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 Doctorate*)

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	5	2	2	2
P2	3	4	3	3	3
P3	2	2	4	4	5
P4	3	3	3	3	3
P5	4	2	2	2	2

