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

Course Title	Genetic Engineering								
Course Code	TIB524		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	6	Workload	151 *(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)									

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

Recommended or Required Reading	
1	1. Molecular Cell Biology – Harvey Lodish, Arnold Berk, Chris A. Keiser, Monty Krieger, Anthony Bretscher, Hidde Ploegh, Angelika Amon, Mathew P. Scott - W. H. Freeman; Seventh Edition edition (May 2, 2012)
2	Molecular cloning: A laboratory manual – Michael Green and Joseph Sambrook – Cold Sprıng Harbor Laboratory Press (Fourth edition) 2012

Week	Weekly Detailed Course Contents	
1	Practice	Introduction to genetic engineering
2	Practice	DNA modification enzymes I
3	Practice	DNA modification enzymes II
4	Practice	Plasmid DNA
5	Practice	chromosomal DNA
6	Practice	Subcloning
7	Practice	Recombinant DNA
8	Intermediate Exam	Midterm exam
9	Practice	Promoters
10	Practice	DNA digestion
11	Practice	in vitro mutagenesis I
12	Practice	in vitro mutagenesis II
13	Practice	Subcloning project I
14	Practice	Subcloning project II
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	2	2	52
Lecture - Practice	13	5	2	91
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 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	1
P2	1	5	1	5	5
P3	1	5	1	5	5
P4	1	1	2	1	2
P5	3	3	5	5	2