AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Gene Transfer Vectors and Vector Designing								
Course Code	TIB629		Couse Level	Third Cycle (Doctorate 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)	Prof. Abdullah YALÇIN								

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

Recommended or Required Reading	
1	1. Molecular cloning: A laboratory manual – Michael Green and Joseph Sambrook – Cold Sprıng Harbor Laboratory Press (Fourth edition) 2012
2	2. Minicircle and miniplasmid DNA vectors: The future of non-viral and viral gene transfer - Martin Schleef – Wiley Blackwell 2013

Week	Weekly Detailed Course Contents	
1	Theoretical	General overview of gene transfer vectors
2	Theoretical	Analytical tools of vector design
3	Theoretical	Bioinformatic tools of vector design
4	Theoretical	Plasmid vector replication
5	Theoretical	Antibiyotic selection on plasmid vectors
6	Theoretical	Transient and stable expression systems I
7	Theoretical	Transient and stable expression systems II
8	Intermediate Exam	Midterm Exam
9	Theoretical	Vector amplification applications
10	Theoretical	Gene transfer by non-viral vectors
11	Theoretical	Gene transfer by viral vectors
12	Theoretical	Selection by Operons and repressors
13	Theoretical	Selection by RNA-RNA interactions
14	Theoretical	Vector patents
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	4	2	78
Lecture - Practice	13	3	2	65
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	3	2	2
P2	2	2	4	4	5
P3	2	2	3	3	3
P4	3	3	3	2	3
P5	3	3	2	2	3