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

Course Title	Mutation Types and Repair Mechanisms								
Course Code	TIB523		Couse Level		Second Cycle (Master's Degree)				
ECTS Credit	5	Workload	120 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Medical Biology education								
Course Content	Mechanisms of mutations, Tautomeric changes, Base analoges, alkylating agents, apurinic regions and other lesions. UV radiaton and timidine dimers. DNA repairing mechanimsm, Base and nucleotide excision repairments, Mismatch repairment. DNA damage and its relation with cancer.								
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. NCBI Pubmed ve güncel bilimsel yayınlar
2	2. DNA repair and Mutagenesis – Friedberg EC et al. – ASM press scaond edition (2005)

Week	Weekly Detailed Course Contents	
1	Theoretical	DNA damage response
2	Theoretical	DNA damage biochemistry
3	Theoretical	Mutagenesis
4	Theoretical	Introduction to DNA repair
5	Theoretical	UV irradiation damage and its repair
6	Theoretical	Chemical DNA damage and repair
7	Theoretical	Base excision repair
8	Intermediate Exam	Midterm exam
9	Theoretical	Nucleotide excision repair
10	Theoretical	Alternative excision repair
11	Theoretical	Mismatch repair
12	Theoretical	Mitochondrial DNA repair
13	Theoretical	DNA damage tolerance
14	Theoretical	Regulation of DNA repair
15	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	5	2	91
Midterm Examination	1	10	2	12
Final Examination	1	15	2	17
			Total Workload (Hours)	120
			[Total Workload (Hours) / 25*] = **ECTS**	5
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	1. Learning current medical biology topics
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	5	5	2	2
P2	1	1	1	1	1
P3	1	1	1	1	1
P4	1	1	1	2	3
P5	3	3	3	5	5