AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Free Radicals and Antioxidant Systems								
Course Code	TFZ524		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	4	Workload	94 *(Hours)*	Theory	1	Practice	2	Laboratory	0
Objectives of the Course	Comprehends the origin and formation systems of free radicals, formation processes of antioxidant molecules.								
Course Content	Free radicals, relations with other systems, antioxidant enzymes, enzymes formation processes, antioxidant balance								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Individual Study								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Guyton, Tıbbi Fizyoloji
2	Vander, İnsan Fizyolojisi

Week	Weekly Detailed Course Contents	
1	Theoretical	Free radicals
2	Theoretical	Origins of free radicals
3	Theoretical	İntrinsic sources of free radicals
4	Theoretical	Pathophysiological effects of free radicals
5	Theoretical	Antioxidants
6	Intermediate Exam	visa
7	Theoretical	İntrinsic antioxidants
8	Theoretical	extrinsic antioxidants
9	Theoretical	antioxidant enzymes 1
10	Theoretical	antioxidant enzymes 2
11	Theoretical	oxidant-antioxidant balance
12	Theoretical	oxidant-antioxidant balance 2
13	Theoretical	degradation of oxidant-antioxidant balance
14	Theoretical	degradation of oxidant-antioxidant balance 2
15	Theoretical	measurement of plasma and tissue levels of free radicals
16	Final Exam	final

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	1	0	14	14
Lecture - Practice	1	14	14	28
Assignment	10	0	2	20
Reading	3	0	10	30
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
			Total Workload (Hours)	94
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	
2	
3	
4	
5	

Programme Outcomes *(Physiology (Medical) Master's Without Thesis)*	
1	Has a general knowledge about the field of physiology
2	Records the interactions of systems in the normal functioning of the body
3	Has the ability to produce solutions to the deficiencies in the field
4	Has the ability to determine the deficiencies in the field by specializing in a specific subject.
5	Has the ability to comply with ethical principles

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