AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
PHYSIOLOGY
PHYSIOLOGY (MEDICAL)
PHYSIOLOGY (MEDICAL) MASTER
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)*	
1	To be able to acquire a background needed for basic physiological research and having the ability to use the teoritical and practical knowledge in the field
2	To be able to prepare the article in the science of physiology
3	To be able to present papers in the field of science of physiology
4	To have professional ethics and responsibility
5	To be able to reach a level to follow research in the field, to possess written and spoken communication skills and be able to join discussions

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