



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Cardiovascular System Physiology							
Course Code		VFZ607		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	150 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The realization of heart, circulation and the lymphatic system.							
Course Content		Blood flow and blood vessels, blood pressure, capillary flow, cardiac cycle, nervous circulation of the circulation, cardiac output and its regulation, fetal circulation.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Individual Study, Problem Solving					
Name of Lecturer(s)		Lec. Ece KOÇ YILDIRIM							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	38
Final Examination	1	60
Quiz	4	1
Term Assignment	1	1

Recommended or Required Reading

1	Reece W.O. (2008) Dukes Veteriner Fizyoloji Cilt I ve II, Onikinci Baskı (Türkçe Çeviri). Ed: Yıldız S. Medipres, Malatya.
2	Guyton AC, Hall JE (2001) Tıbbi Fizyoloji Onuncu baskı (Türkçe Çeviri). Ed: Çavuşoğlu H. Nobel Tıp Kitabevi, İstanbul.
3	Noyan A. (2003). Yaşamda ve Hekimlikte Fizyoloji. 13. baskı, Meteksan-Ankara.
4	Randall D., Burggren W., French K, Fernald R., (1997). Eckert Animal Physiology. Mechanisms and Adaptations. 4th Ed., New York.
5	G.C. Whittow et al. (1998). Sturke's Avian Physiology.
6	Willmer P., Stone G., Johnston I. (2005). Environmental Physiology of Animals. 2nd Ed. Blackwell Publishing.
7	Despopoulos A., Silberagl S. (2003). Color Atlas of Physiology 5th Ed. Thieme, Stuttgart New York.
8	Vander et al. (2001). Human Physiology: The Mechanism of Body Function, 8th Ed. The McGraw-Hill Companies.

Week	Weekly Detailed Course Contents	
1	Theoretical	Overview the circulation.
	Practice	Microcirculation.
2	Theoretical	Heart and its anatomophysiologic features.
	Practice	The physiologic features of cardiac muscle.
3	Theoretical	The features of cardiac muscle.
	Practice	The effects of some chemicals on the heart.
4	Theoretical	The nrural and humoral controlling of the heart.
	Practice	The effect of the heat on the heart.
5	Theoretical	The factors effecting of the heart
	Practice	EKG
6	Theoretical	Heart sounds.
	Practice	Electrodes in EKG
7	Theoretical	Blood circulation
	Practice	Electrocardiographic leads
8	Theoretical	Midterm
	Practice	Midterm
9	Theoretical	Arterial and Venous systems.
	Practice	EKG in the animals.
10	Theoretical	Blood pressure
	Practice	Characteristics of the normal EKG



11	Theoretical	The nervous of the vesseks and vasomotor events.
	Practice	Cardiac bloks
12	Practice	Principles of vectorial analysis of EKG and its clinical importance
13	Theoretical	Lymphatic system
	Practice	Heart sounds recording
14	Theoretical	Capillary circulation
	Practice	The wave of pulse
15	Theoretical	Presentations
	Practice	Blood pressure

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	1	2	42
Assignment	4	2	1	12
Term Project	1	20	1	21
Quiz	4	2	1	12
Midterm Examination	1	6	1	7
Final Examination	1	13	1	14
Total Workload (Hours)				150
[Total Workload (Hours) / 25*] = ECTS				6

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	1. To realize heart and its structure, specialized excitatory and conductive system of the heart.
2	2. To get information about arrhythmias, fibrillation and cardiac blok
3	3. To perform EKG and its interpretation.
4	4. To get information about blood circulation and microcirculation.
5	5. To get information about blood pressure and lymphatic system.

Programme Outcomes (Physiology (Veterinary Medicine) Doctorate)

1	Has a deep and broad knowledge about the field and the interdisciplinary area related with the field through the achievements gained in undergraduate and professional levels
2	Has the knowledge to create original ideas, analyze them and develop definition/product/diagnosis methods by using the knowledge gained in undergraduate and/or professional experience, when needed
3	Is knowledgeable about theories and practices in methodological and scientific research methods to run an independent research
4	Excels in the laboratory, clinical and similar fields by using the theoretical and practical information gained in former education, and has the ability to create solutions in related fields
5	Designs and develops scientific methodology for the advanced level/newly defined/emerged problems about the field
6	Excels in the known scientific methods in the field for the advanced level/ newly defined/emerged problems
7	Designs unique researches and implements independently
8	Analyzes, synthesizes and evaluates the new ideas in related fields by using critical thinking
9	Plans, creates teams and carries out the interdisciplinary research projects in order to create solutions to the known/newly defined problems
10	Joins to congresses, panels, symposiums, workshops, seminars, article discussions and problem solving sessions in different disciplines, and exchanges information with the other professionals to contribute to the solutions
11	Broadens the borders of scientific information by publishing scientific articles in national and/or international peer-reviewed journals
12	Creates new ideas and methods to contribute to the technological, social and cultural progress, or to help the development of information society by using the theoretical, practical, independent research, abilities responsibly
13	Designs and implements social projects with the awareness of creating an information society
14	Compiles and interprets any type of data (field observation, scientific knowledge etc.) in accordance with the aims
15	Develops and uses strategies about related topics with the field
16	Implements and defends institutional and practical information and abilities in accordance with the needs of the country and the world, and changes when necessary



17	Follows up and uses all the updates about the field (scientific information, legislations etc.), and has the qualification to change them
18	Adopts lifelong learning as a principle and acknowledges that the information gained through research is the most valuable gain

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	2	2	2	2	2
P2	2	2	2	2	2
P3	1	1	1	1	1
P4	3	3	3	3	3
P5	2	2	2	2	2
P6	2	2	2	2	2
P7	1	1	1	1	1
P8	3	3	3	3	3
P9	1	1	1	1	1
P10	3	3	3	3	3
P11	4	4	4	4	4
P12	2	2	2	2	2
P13	1	1	1	1	1
P14	4	4	4	4	4
P15	4	4	4	4	4
P16	4	4	4	4	4
P17	4	4	4	4	4
P18	4	4	4	4	4

