MUSCLE PHYSIOLOGY.

1	Course Title:	MUSCLE PHYSIOLOGY.
2	Course Code:	VFZ 6017
3	Type of Course:	Optional
4	Level of Course:	Third Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	none
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. NURTEN GALİP
15	Course Lecturers:	Prof. Dr. Nurten GALİP Prof. Dr. Fahrünisa CENGİZ Prof. Dr. Cenk AYDIN Doç. Dr. Murat YALÇIN Yrd. Doç. Dr. Füsun AK SONAT
16	Contact information of the Course Coordinator:	nurteng@uludag.edu.tr +90 224 294 1273 Uludağ Üniversitesi Veteriner Fakültesi Fizyoloji AbD Görükle Bursa 16059
17	Website:	http://www.veteriner.uludag.edu.tr
18	Objective of the Course:	The gastrointestinal and nutritional physiology of different species. The respiratory, renal physiology, reproductive physiology and nerve and muscle physiology. The cardiovascular physiology. The endocrine system and its regulation. Thermoregulation, and sensory physiology
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	The gastrointestinal and nutritional physiology of different species
	2	The cardiovascular physiology
	3	Special circulations
	4	The respiratory physiology
	5	The renal physiology
	6	Female reproductive physiology
	7	Male reproductive physiology
	8	The endocrine system and its regulation

	9	Sensory physiology
	10	Thermoregulation

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Introduction to digestive physiology, description of herbivores, omnivores and carnivores terms, prehension, mastication, movements of esophagus, vomiting, salivary secretion, composition of saliva, control of salivary secretion, deglutition, neuronal control of deglution, eructation	
2	Secretory fuction of gastrointestinal tract, functional anatomy of gastric secretion, secretion of HCl, control of gastric acid secretion, phases and inhibition of gastric secretion, liver and pancreas functions, pancreatic exocrine secretion, biliary secretion, motility of small intestine and motor functions of the large intestine.	
3	Digestion in the ruminant stomach, development of the ruminant stomach, sulcus eosophagicus, nervous control, motility of rumen, reticular groove, rumination, eructation, secretion, absorption of volatile physiopathology of ruminant digestive tract	
4	Digestion of intestines, avian digestion and digestion carbohydrates, lipids and protein digestion of avian, regulation of	
5	Respiration in mammals, inspiration, capacities, pulmonary ventilation, oxygen and carbon dioxide transport, regulation of	
6	Functional anatomy of kidney, renal mechanism of ionic reabsorption and excretion, measurements of renal function, compounds, hormonal regulation of renal function, renal responses to changes in pH, fluid, and electrolyte equilibrium, comparative renal physiology, micturition, urine.	
7	Functional anatomy of reproductive organs, spermatogenesis, hormonal control of spermatogenesis, male accessory glands, testicular function, erection and ejaculation, Reproductive hormones, ovarian functions, reproductive cycles, puberty, estrous and menstrual cycles, postpartum ovarian activity, pregnancy, the placenta, parturition	
8	Functional anatomy of cardiovascular system, properties of myocardial cells, electrophysiology of the heart, cardiovascular system, regulation of the heart, ECG, arterial system, capillary system	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	4.00	56.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	0	0.00	0.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	15.00	15.00
Others	2	18.00	36.00
Final Exams	1	15.00	15.00
Total Work Load			165.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			2.00

9	Control mechanism of the circulatory system, fetal circulation, liver circulation, spleen, brain and skeletal muscle circulation.	
10	Introduction of endocrine system, hormone chemistry, regulation of hormone secretion and activity, hypophysis cerebri and hypothalamus hormones and its function	
11	Thyroid gland, hormones associated with calcium and skeletal hormones, adrenal gland and hormones from other organs.	
12	Endocrine secretion of pancreas, prostaglandins	
13	Poikilothermism and homeothermism, hibernation, body temperature, heat balance, physiological responses to heat and cold, regulation of body temperature.	
14	Somesthetic sensory mechanisms, The eye and vision, taste, smell and hearing.	

22	Textbooks, References and/or Other Materials:	1- YAMAN, K. Fizyoloji. Ezgi kitabevi, Bursa, 2004. 2- YILMAZ B. Fizyoloji. Medisan Yayınevi, Ankara, 2000. 3- NOYAN A. Fizyoloji Ders Kitabı, Meteksan Yayınevi, Ankara, 1993. 4- GUYTON AC., HALL JE. Tıbbi Fizyoloji Nobel Yayınevi, İstanbul, 2000. 5- CUNNINGHAM JG. Textbook of Veterinary Physiology, Elsevier, USA, 2002 6- CHURCH DC. Digestive Physiology and nutrition of Ruminants.Metropolitan Printing Co. Portlan, 1976 7- YILMAZ B. Hormonlar ve üreme fizyolojisi, Medisan Yayınevi, Ankara, 1999.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	30.00
Quiz	1	10.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	4	3	3	4	5	4	4	4	4	4	4	0	0	0	0
ÖK2	5	5	4	4	4	5	5	5	5	5	5	5	0	0	0	0
ÖK3	5	5	4	4	5	5	5	5	5	5	5	5	0	0	0	0

ÖK4	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0
ÖK5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0
ÖK6	5	4	5	5	5	5	5	5	5	5	5	5	0	0	0	0
ÖK7	5	5	4	5	5	5	4	4	5	5	5	5	0	0	0	0
ÖK8	5	5	4	4	5	5	4	4	5	5	5	5	0	0	0	0
ÖK9	5	4	3	3	4	5	4	4	4	4	4	4	0	0	0	0
ÖK10	5	5	4	4	4	5	5	5	5	5	5	5	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**