PHYSIOLOGY II

1	Course Title:	PHYSIOLOGY II	
2	Course Code:	VET1014	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	4.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	none	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. Murat YALÇIN	
15	Course Lecturers:	Prof. Dr. Nurten GALİP Prof. Dr. Cenk AYDIN Dr. Öğr. Üy. Füsun SONAT Prof. Dr. Murat YALÇIN Prof. Dr. Nurten GALİP Prof. Dr. Cenk AYDIN Dr.Öğr.Üyesi.Füsun AK SONAT	
16	Contact information of the Course Coordinator:	muraty@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:	Physiology gives the basic elements of life in all applications throughout professional life. In addition, the course aims to provide students with sufficient and basic knowledge about all physiological systems, contributing to their professional lives. As a basic science, physiology provides the basis for understanding clinical information professionally. More about this source textSource text required for additional translation information	
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 ... functional anatomy of gastric secretion, ... secretion, liver and pancreas functions, ... functions of the large intestine.	Prehension, mastication, deglution and rumination in ruminants. ... intestinal motility on rabbits.
	... esophagicus, nervous control, motility of ... fatty acids, ammonia and inorganic ions and ... digestion, lipid hydrolysis, defecation and ...	
4	... regulation of food intake, motility, secretion and digestion, carbohydrates, lipids and protein digestion of avian, regulation of motility an secretion.	Protozoa counts in rumen fluid.
5	Respiration in mammals, inspiration, expiration, pulmonary volumes and capacities, pulmonary ventilation, oxygen and carbon dioxide transport, regulation of respiration, descriptive terms (hypoxia, cyanosis, other terms,)	Mechanics of respiration.

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			150.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

6	Functional anatomy of kidney, renal circulation, functions of renal tubules, mechanism of ionic reabsorption and excretion, measurements of renal function, renal transport process for organic compounds, hormonal regulation of renal function, renal responses to changes in pH, fluid, and electrolyte equilibrium, comparative renal physiology, micturition, urine.	Determination of pulmonary volumes and capacities.
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	Urine collection in different animal species and physiological evaluation.
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	Capillary circulation in frogs.
9	Control mechanism of the circulatory system, fetal circulation, liver circulation, spleen, brain and skeletal muscle circulation.	Monitoring to heart movements in frogs.
10	Introduction of endocrine system, hormone chemistry, regulation of hormone secretion and activity, hypophysis cerebri and hypothalamus hormones and its function	ECG and measurement of blood pressure.
11	Thyroid gland, hormones associated with calcium and skeletal hormones, adrenal gland and hormones from other organs.	Effects of histamine and epinephrine on capillary in frogs (P Group A).
12	Endocrine secretion of pancreas, prostaglandins	Effects of histamine and epinephrine on capillary in frogs (P Group B).
13	Poikilothermism and homeothermism, hibernation, body temperature, heat balance, physiological responses to heat and cold, regulation of body temperature.	Measurement and discussion of rectal temperature in different animal species.
14	Somesthetic sensory mechanisms, The eye and vision, taste, smell and hearing.	Determination of blind spot, visual acuity and astigmatism, successive and simultaneous contrast tests.

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	Multiple choice exam

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**