BLOOD PHYSIOLOGY AND APPLICATIONS

1	Course Title:	BLOOD PHYSIOLOGY AND APPLICATIONS	
2	Course Code:	VFZ6001	
3	Type of Course:	Compulsory	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	5.00	
8	Theoretical (hour/week):	2.00	
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. FAHRÜNISA CENGİZ	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	fnisa@uludag.edu.tr +90 224 294 1271 Uludag University Faculty of Veterinary Medicine Department of Physiology Gorukle Bursa Turkey 16059	
17	Website:		
18	Objective of the Course:	The aim of the course is to explain the blood physiology and experiments and to interpret the issues related to blood.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To be able to explain blood structure and it’s composition
		2	To be able to describe the blood cells
		3	To be able to explain coagulation and clotting factors
		4	To be able to explain bleeding
		5	To be able to describe anemia
		6	To be able to describe blood groups
		7	To be able to describe blood-related diseases
		8	To be able to explain the transfer of blood in animals
		9	
		10	
21	Course Content:		
	Course Content:		
Week	Theoretical	Practice	

1	Blood cells, plasma,serum Anticoagulant substances Interactions between bleeding and vitamin K	To provide information on issues related to blood sampling in animals
2	Erythrocytes Red blood cell production Life span of red blood cells	Introduction of tools and equipment used in blood count, give information about the dilutions melts
3	Hemoglobin Compounds Methemoglobin	Determination the amount of hemoglobin
4	Anemia, causes of formation, types The amount of blood Blood storage organs	Hematocrit
5	Myoglobin Breakdown of red blood cells	Red blood cell count
6	White blood cell White blood cell types	Staining Blood Smear and Formula of leucocytes
7	Tissue macrophage system Life span of white blood cells	White blood cell count
8	Thrombocytes Coagulation	Determination of the clotting time with capillary tube method
9	Internal mechanism (Intrinsic) External mechanism (extrinsic)	Determination of bleeding time
10	Thrombus formation in vessel Fibrinolysis	Hemolysis test
11	Pausing the clot Inherited bleeding disorder (hemophilia)	Measurement of the diameter of red blood cells
12	Blood plasma, Blood plasma components, Plasma proteins, Blood groups and Rh system	Determination of blood groups
13	Blood groups in animals	Determination of osmatic resistance of red blood cells
14	Blood transfer in animals	Determine rate of sedimantation of red blood cells (Sedimentation)
22	Textbooks, References and/or Other Materials:	1- NOYAN, A. Yaşamda ve Hekimlikte Fizyoloji, Meteksan Ankara, 2005. 2- GUYTON, AC. HALL JE. Textbook of Medical Physiology, Saunders, 2005. 3- YILMAZ, B. Fizyoloji. Medisan Yayınevi, Ankara, 2000. 4- YAMAN, K. Fizyoloji. Güven Mücellit Matbaacılık Ltd. Şti. Bursa, 2009. 5- Swenson, M. J. Duke's Physiology of Domestic Animals, 10. Ed. Cornell University, Rsess, Ithaca New York, 1984. 6- Frandso RD, Wilkw WL, Fails AD, Anatomy and Physiology of Farm Animals 7th Edition, USA, 2009.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00

Quiz	0	0.00
Home work-project	2	25.00
Final Exam	1	75.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		25.00
Contribution of Final Exam to Success Grade		75.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	1.00	14.00
Homeworks	2	10.00	20.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	3	15.00	45.00
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

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	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0
ÖK2	5	5	4	4	4	5	4	4	5	5	4	4	0	0	0	0
ÖK3	5	5	4	4	4	4	4	4	5	5	4	4	0	0	0	0
ÖK4	5	4	4	4	4	5	4	4	4	4	4	4	0	0	0	0
ÖK5	5	5	5	5	5	4	5	5	4	4	5	5	0	0	0	0
ÖK6	4	4	4	4	4	3	4	4	4	4	4	4	0	0	0	0
ÖK7	4	4	4	4	4	5	4	4	4	4	4	4	0	0	0	0
ÖK8	3	3	4	4	4	3	5	3	4	4	4	4	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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