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:	Dr. Ögr. Üyesi Füsun AK SONAT
15	Course Lecturers:	Dr. Öğr. Üyesi Füsun Ak Sonat
16	Contact information of the Course Coordinator:	fusunak@uludag.edu.tr +90 224 294 1229 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:	increasing students' knowledge and experience about physiology of blood.
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)	Determination of bleeding time
10	Fibrinolysis Hereditary bleeding disorder (hemophilia)	Determination of blood groups
11	Blood plasma, Blood plasma components, Plasma proteins, Blood groups and Rh	Determination of osmatic resistance of red blood cells
12	Blood groups in animals	Determine rate of sedimentation of red blood cells (Sedimentation)
13	Blood transfer in animals	
14		

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preparation	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

	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		Classical 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	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**