BLOOD PHYSIOLOGY AND APPLICATIONS						
1	Course Title:	BLOOD PHYSIOLOGY AND APPLICATIONS				
2	Course Code:	VFZ 6001				
3	Type of Course:	Compulsory				
4	Level of Course:	Third Cy	cle			
5	Year of Study:	1				
6	Semester:	1	1			
7	ECTS Credits Allocated:	5.00				
8	Theoretical (hour/week):	2.00	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.	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					

Theore Fobrinolysis 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Self study/manidear expectation disorder (hemophilia) 14 1.00 14.00 Homeworks 2 10.00 20.00 Project Plasma proteins, Blood groups and Rh 0 0.00 0.00 Field Studies 0 0.00 0.00 Midtern exams 0 0 0.00 0.00 Midtern exams 0 0 0.00 0.00 Midtern exams 0 0 0.00 0.00 Final Explored transfer in animals Determination of osmatic resistance of red blood cells 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.	1	Blood cells, plasma,serum Anticoagulant substances Interactions between bleeding and vit	tamin K	To provide information on issues related to blood sampling in animals					
Methemoglobin	2	Red blood cell production		In gi	Introduction of tools and equipment used in blood count, give information about the dilutions melts				
The amount of blood Blood storage organs 5 Myoglobin Breakdown of red blood cells 6 White blood cell White blood cell White blood cell types 7 Tissue macrophage system Life span of white blood cells 8 Thrombocytes Coagulation Activites Number Determination of the clotting time with capillary tube method Activites Number Duration (hour) Total Work Load (hour) Theore Total Work Load (hour) T	3	Hemoglobin Compounds Methemoglobin		D	Determination the amount of hemoglobin				
Breakdown of red blood cells 6 White blood cell types 7 Tissue macrophage system Life span of white blood cells 8 Thrombocytes Coagulation Activites Number Determination of the clotting time with capillary tube method Activites Number Duration (hour) Total Work Load (hour) Theore (Gibrinolysis 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Self stu dry analogo blass diring disorder (hemophilia) Homeworks 2 10.00 20.00 Project Plasma proteins, Blood groups and Rh Field Studies 0 0.00 0.00 Indiger revens Determination of one all resistance of red blood cells 15 00 Firial E Blood arous in animals Determine rate of sedim analogo fred blood cells Total Work Load Total Course 2 GUYTON, AC, HALL JE, Textbook of Medical Physiology, Saunders, 2005. 3 'YILMAZ, B, Fizyoloji. Medisan Yayunevi, Ankara, 2000. 4 'York, 1984. 6 Frandso RD, Wilkw WL, Fails AD, Anatomy and Physiology of Farm Animals 7th Edition, USA, 2009. TERM LEARNING ACTIVITIES NUMBE WEIGHT White blood cell count White blood cell count University tube Determination of the clotting time with capillary tube Determination of the clotting time with capillary tube Determination of the clotting time with capillary tube Load (hour) Total Work Load (hour) Duration (hour) Total Work Load (hour) T	4	The amount of blood		Hematocrit					
White blood cell types 7 Tissue macrophage system Life span of white blood cells 8 Thrombocytes Coagulation Activites Determination of the clotting time with capillary tube method Number Duration (hour) Total Work Load (hour) Theore Starting and type and the clotting time with capillary tube method Activites Number Duration (hour) Total Work Load (hour) Theore Starting and type and	5			R	Red blood cell count				
Life span of white blood cells 8	6			S	Staining Blood Smear and Formula of leucocytes			ocytes	
Activities Number Duration (hour) Total Work Load (hour)	7			W	White blood cell count				
Theore Distrinolysis 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Self stu thy and plasma proteins and the pro	8								
Practicals/Labs 14 2.00 28.00 Self stu dynamidate bearding disorder (hemophilia) 14 1.00 14.00 Homeworks Project Plasma proteins, Blood groups and Rh Project Plasma proteins, Blood groups and Rh Potential Studies 0 0.00 0.00 Midtern exams Placed drauns in animals Determination of osmatile resistance of red blood cells Others 3 15.00 45.00 Final Elaborator transfer in animals Determine rate of sedimensation of red blood selfs Total Work Load Total work load/ 30 hr ECTS Credit of the Course 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. \$ti. 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 NUMBE WEIGHT	Activit	es		7	Number	Duration ((hour)	Total Work Load (hour)	
Self stu dry ramidor exerciting disorder (hemophilia) Homeworks 2 10.00 20.00 Project Plasma proteins, Blood groups and Rh Field Studies 0 0.00 0.00 Midtern exams 12 Blood groups in animals Others 3 15.00 45.00 Final Elakosd transfer in animals Determine rate of sedim and animals 150.00 Total work load/30 hr ECTS Credit of the Course 2 GUYTON, AC. HALL JE. Textbook of Medical Physiology, Saunders, 2005. 3 - YILMAZ, B. Fizyoloji. Güven Mücellit Matbaacılık Ltd. Sti. 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 NUMBE WEIGHT NUMBE WEIGHT	Theore	Figrinolysis		T	14	2.00		28.00	
Homeworks Project Plasma proteins, Blood groups and Rh Project Plasma proteins, Plasma proteins and Rh Project Plasma proteins, Plasma proteins and Rh Project Plasma proteins, Plasma proteins and Rh Project Plasma pro	Practica	als/Labs			14	2.00		28.00	
Project Plasma proteins, Blood groups and Rh Field Studies 0 0.00 0.00 Midtern exams 13 0.00 Determination of osmatic resistance of red blood cells Others 3 15.00 45.00 Final E along transfer in animals Determine rate of sedimal animals 150.00 Total Work Load Total Work Load Total work load/ 30 hr ECTS Credit of the Course 2- GUYTON, AC. HALL JE. Textbook of Medical Physiology, Saunders, 2005. 3- YILMAZ, B. 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 NUMBE WEIGHT NUMBE WEIGHT	Self stu	dyhænideodrehæerettingndisorder (hemophi	lia)	Т	14	1.00		14.00	
Field Studies 0 0.00 0.00 Midtern exams 13 Determination of osmatic resistance of red blood cells 3 15.00 45.00 Final E Almosd transfer in animals Determine rate of sedim animals 150.00 Total Work Load Total work load/30 hr ECTS Credit of the Course 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 NUMBE WEIGHT NUMBE WEIGHT					2	10.00		20.00	
Field Studies 0 0.00 0.00 Midtern exams 13 Determination of osmatic resistance of red blood cells 3 15.00 45.00 Final E Almosd transfer in animals Determine rate of sedim animals 150.00 Total Work Load Total work load/30 hr ECTS Credit of the Course 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 NUMBE WEIGHT NUMBE WEIGHT	Project	Plasma proteins. Blood groups and R	i eriis, Ph	Т	0	0.00		0.00	
Others 3 15.00 45.00 Fifal E Riosd transfer in animals Determine rate of sedimation of red blood sels 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 NUMBE WEIGHT					0	0.00		0.00	
Others 3 15.00 45.00 Fifal E Riosd transfer in animals Determine rate of sedimation of red blood sels 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 NUMBE WEIGHT	Midtern	nexams		Ę	0	0.00.		0.00	
Total Work Load Total work load/ 30 hr ECTS Credit of the Course 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 NUMBE WEIGHT		IRIOOG GROUNS IN ANIMAIS		П)			or red		
Total Work Load Total work load/ 30 hr ECTS Credit of the Course 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 NUMBE WEIGHT		Almsd transfer in animals		Īρ	ettermine rate of se		ed bloo		
Total work load/ 30 hr ECTS Credit of the Course 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 NUMBE WEIGHT				1,0					
ECTS Credit of the Course 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 NUMBE WEIGHT				-					
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 NUMBE WEIGHT				١.			. - -		
TERM LEARNING ACTIVITIES NUMBE R				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					
R	23	Assesment							
Midterm Exam 0 0.00	TERM L		_	W	WEIGHT				
\mathbf{I}	Midtern	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 Success Grade	ng Activities to	25.00		
Contribution of Final Exam to Succ	ess Grade	75.00		
Total		100.00		
Measurement and Evaluation Tech Course	nniques Used in th	е		
24 ECTS / WORK LOAD	ECTS / WORK LOAD TABLE			

CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME **QUALIFICATIONS** PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 ÖK2 ÖK3 ÖK4 ÖK5 ÖK6 ÖK7 ÖK8 LO: Learning Objectives PQ: Program Qualifications 4 High 5 Very High 1 very low 2 low 3 Medium Contrib ution Level: