BLOOD PHYSIOLOGY

1	Course Title:	BLOOD PHYSIOLOGY	
2	Course Code:	TKB5001	
3	Type of Course:	Compulsory	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	1.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	No	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. KASIM ÖZLÜK	
15	Course Lecturers:	Prof. Dr. Kasım Özlük Prof. Dr. Naciye İ. Büyükcoşkun	
16	Contact information of the Course Coordinator:	Prof. Dr. Kasım Özlük kasim@uludag.edu.tr 2954001 Tıp Fakültesi Fizyoloji Anabilim Dalı	
17	Website:		
18	Objective of the Course:	The aim is to learn about the physical properties of blood, production of blood cells, and their functions, as well as to understand how blood remains without clotting and haemostatic mechanism work in case of a vessel injury with practical and theoretical classes	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To know about the physical properties of blood
		2	To know the mechanism for producing blood cells
		3	To be able to count blood cells in the laboratory
		4	To have knowledge of platelet function and blood clotting mechanism
		5	To be able to determine the bleeding time, clotting time and the sedimentation rate
		6	To have knowledge of the fibrinolytic system and fibrinolytic tests
		7	To have the understanding about the mechanisms of infection protection in the body
		8	To be knowledgeable about blood groups and be able to determine them
		9	To have knowledge about the mechanisms of anticoagulants action
		10	
21	Course Content:		

	Course Content:	
Week	Theoretical	Practice
1	Physical properties of blood	The presentation of the laboratory materials, microscope usage and safety rules to pay attention for laboratory staff
2	Haematopoiesis and hematopoietic systems	Blood sampling methods
3	Erytropoiesis and its regulation, erythrocytes	Red blood cell count with haemocytometer method,
4	Haemoglobin, haemoglobin types	Leukocyte count with haemocytometer method,
5	Lökopoez and leukocyte types	Trombocyte count with haemocytometer method
6	Hematopoietic agents, anaemia	Determination of haemoglobin level, hematocrit measurement
7	Iron homeostasis	Leukocyte formula in the peripheral blood smear
8	Platelet and functional characteristics'	Reticulocyte and platelet count by indirect methods in the peripheral blood smear
9	Haemostasis and coagulation	Drawing blood from vein, sedimentation rate measurement, haemolysis
10	Fibrinolytic system	Determination of fibrinolytic activity
11	Natural immunity	Drawing blood from vein for determination of bleeding and clotting time
12	Acquired immunity	The effect of anticoagulants on clotting, obtaining fibrin-defibrinated blood, investigation of capillary resistance
13	Blood groups	Determination of blood groups
14	Anticoagulants and their mechanism of actions	Osmotic fragility
22	Textbooks, References and/or Other Materials:	Medical Physiology Arthur C.Guyton, John E. Hall Medical Physiology William F. Ganong Interactive Physiology Benjamin Cummings Human Physiology - Vander
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	4	0.00
Final Exam	1	100.00
Total	5	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
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	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	1	28.00	28.00
Homeworks	4	16.00	64.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	6	4.00	24.00
Final Exams	1	24.00	24.00
Total Work Load			182.00
Total work load/ 30 hr			6.07
ECTS Credit of the Course			6.00

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
ÖK8	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0
ÖK9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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