Course plan

Year: 2025-2026	**Semester:** ☐ First ■ Second	**Number of students: 20**
Major: MD, MBBS	■ Basic sciences ☐ Physiopathology	**Department:** Physiology
Course Title: Physiology of blood	■ Theoretical ☐ Practical	**Credit:** 0.29
Prerequisite: none	**Day & Time:** Tuesday, 10-11 A.M.	**Place:** Tadbir
Instructor: Dr. Ghasemi	**Office address:** School of Medicine, Department of physiology	**Tel:** 031-3792 9014
Email: ghasemi.m.ph@gmail.com	**Response Hours and Days:** 13-15 p. m Tuesday	**Student representative name and mobile number:**

Main objective: Understanding the main function of blood in our body.

Specific objects:
1- Blood plasma components and function and the cellular elements of blood, blood cell production or hematopoiesis
2- Functional and structural characteristic of red blood cells (the structures of immature and mature red blood cells, the molecular structure of hemoglobin, iron metabolism, the common pathologies of red blood cells.)
3- Platelets (the production, structure, and functions of platelets)
4- Hemostasis and coagulation (hemostasis and coagulation, the key steps of hemostasis, coagulation, and fibrinolysis)
5- Leukocytes, granulocytes, the monocyte- macrophage system, and inflammation

References (Text books):
1- Guyton and Hall Textbook of Medical Physiology, (The latest version of the book)
2- Principles of Hofbrand Hematology (The latest version of the book)
3- Human Physiology and integrated approach, Dee U. Silverthorn, silverthorn@utexas.edu University of Texas,Austin, Texas

Student evaluation and the value related to each evaluation:
(The assessment tools that will be used to test student ability to understand the course material and gain the skills and competencies stated in learnings outcomes)

ASSESSMENT TOOLS	From
Class activities and quiz	2
Final Exam (Written and Multiple-choice questions)	18
TOTAL MARKS	**20**

Students' responsibilities:
1- Study the topics before and after the class
2- Observe the class order and rules
3- Attend all classes

Discipline and educational rules:

1- For each unplanned absence, 0.5 points will be deducted from 20, and in case of absence exceeding the permissible limit, the score will be zero.

Row	date	Presentation	Topic	Professor	Theoretical or practical	References	Chapter	Pages
1	Apr 21	In person	General principles and structure of blood, hematopoiesis, erythropoiesis and the importance of erythropoietin	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)	33	439-442
2	Apr 28	In person	Structure and function of erythrocytes, Metabolic activity, Hemoglobin production, Iron metabolism, catabolism or destruction of RBC, anemia, polycythemia and their effect on circulatory function	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)	33	442-447
3	May 5	In person	Hemostasis and platelet structure and function	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall) and Principles of Hofbrand Hematology	37 and 24	477-479
4	May 12	In person	Studying the coagulation and anti-coagulation pathways	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)	37	480-488
5	May 19	Uploaded a PowerPoint presentation on NAVID	Resistance of the Body to Infection: I. Leukocytes, Granulocytes, the Monocyte- Macrophage System, and Inflammation	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)	34	449-458
6	May 26	In person	**Queiz**	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology		

						(Guyton and Hall) and Principles of Hofbrand Hematology		