

Course plan

Year: 2026-2027	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.

- 2- The maximum permission time to participate in the class is 5 min after the start.
- 3- Mobile phone use is prohibited during class.

Other important notes for students:

- 1- Studying the rules and rights of the professor and the student

Mid exam date: In accordance with the schedule

Final exam date: In accordance with the schedule

Row	date	Presentation	Topic	Professor	Theoretical or practical	References	Chapter	Pages
1	Nov. 10	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	Nov. 17	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	Nov. 24	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	Dec. 1	In person	Studying the coagulation and anti-coagulation pathways	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)	37	480-488
5	Dec. 8	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	Dec. 15	In person	Queiz	Dr. Ghasemi	Theoretical	Textbook of Medical Physiology (Guyton and Hall)		

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