

Course Syllabus of Hematology and Blood diseases

Faculty : Medicine and health sciences

Department: Basic Sciences

Program : Bachelor of Medicine and Surgery

I. General information about the course instructor :							
Name	Group of teachers	Office Hours(3 Hours Weekly)					
Location & phone number	-	Sat	Sun	Mon	Tue	Wed	Thu
Email	-						

II. General information about the course							
1.	Course Title :	Hematology and Blood diseases					
2.	Course Code and Number :	BMD25					
3.	Credit Hours :	Credit Hours					Total
		Theoretical	Seminar/Tutorial	Practical	Clinical	Training	
		3	-	1	-	-	4
4.	Level and Semester:	4th year/ 2 nd semester					
5.	Pre-requisites (if any):	Introductory blocks of the first and second year					
6.	Co-requisites (if any) :	None					
7.	Program in which the course is offered:	Bachelor of Medicine and Surgery					
8.	Teaching Language:	English					
9.	Instruction location:	University of Science and Technology, Sana'a					

III. Course Description

This course (block) aims to provide students with the basic, practical and some clinical knowledge, attitudes and skills concerning the histology, physiology, and pathology of the hematopoietic and lymphatic system. The basic classification of anemia's, leukemia's and bleeding disorders and other common hematological diseases are introduced.

Also Students will be exposed to fundamental concepts and practical issues in Histology, Physiology, pathology, pharmacology and clinical skills in an integrated approach, they will apply such concepts to understand common disorders in these systems.

Also, students will be exposed to important diseases in Medicine that are closely linked to these systems. Teaching and learning methods include interactive lectures, small group discussion (Problem-Based Learning "PBL"), practical sessions and demonstrations.

IV. Course Aims:

The aims of this course are

- 1- To provide students with the basic knowledge of the development of different blood elements
- 2- To identify the histology of the organs responsible for hematopoiesis.
- 3- To recognize the etiologies of common hematological conditions.
- 4- To develop the clinical skills, analysis of the result, interpretation and discussion to reach a diagnosis of common hematological conditions.

V. Course Intended Learning Outcomes (CILOs) :

1. Demonstrate the basic scientific knowledge related to normal hematopoiesis and hematological disorders.
2. Identify common hematological problems related to disorders of erythrocytes, leucocytes and platelets.
3. Describe different management modalities for common hematological problems.
Integrate basic biomedical sciences with clinical conditions of common hematological disorders.
4. Interpret physical findings, laboratory tests and diagnostic procedures of common hematological problems to reach the provision diagnosis
5. Perform and document an accurate medical history and perform complete examination and request appropriate and relevant laboratory investigations to determine differential diagnosis for common hematological disorders.
6. Apply the preventable measures for the most common nutritional anemias.
7. Work effectively and cooperatively in a team.
8. Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way

VI. Course Contents				
First: Theoretical Aspects				
No.	Course Topics/Units	Sub-topics	No. of Lectures	Contact Hours
1	Physiology	Haemostasis & blood coagulation Introduction & general functions of: *Red blood cells& *Blood groups& Rh, *Leukocytes *Platelets	6	12
2	Microbiology	Bacterial Infections: * Epidemic / endemic typhus. * Q fever. Malaria Toxoplasmosis / Trypanosome Leishmania Filarisis	3	5
3	Pathology	1. Cellular elements of blood & bone marrow. 2. Anemia: - Classification. -: Iron deficiency -megaloblastic anemias. - Hemolytic anemias: (sickle cell anemia) & thalassemias, hereditary spherocytosis, G6PD deficiency & immune hemolytic anemias. - Aplastic anemia 3. Leukemias: Acute leukemia Chronic leukaemia 4. Bleeding Disorders: Classification. Investigations 5. Disorders of lymphoid tissues: Non-Hodgkin's Lymphomas. Hodgkin's Disease Multiple myeloma	7	14
4	Pharmacology	1. Coagulants 2. Anticoagulants & fibrinolytics 3. Treatment of Nutritional Anemia (Iron & vitamins therapy) 4. Antimalarial agents 5. Anticancer drugs 6. Treatment of Leishmaniasis,	2	4

		7. Treatment of Filarisis .		
5	Biochemistry	1. Iron, folic acid & vitamin B12 metabolism. Haemoglobin structures.	1	2
6	Medicine	Clinical picture, diagnosis, treatment & prognosis of: 1. Anemias & pancytopenia in adults. 2. Idiopathic thrombocytopenic purpera. 3. Neoplastic disorders: a: lymphomas b: Leukemia. c: Myeloma. 4. Malaria 5. Filariasis 6. Leishmaniasis 7. B.M transplantation. 8. Precautions & Reactions of Blood transfusion.	2	4
7	Pediatrics	Clinical picture, diagnosis, treatment & prognosis of: 1. Nutritional anemia (Iron deficiency & Megaloplastic) 2. Aplastic anemia. 3. Hemolytic anemias. 4. Bleeding disorders(platelets & coagulation factors). 5. Leishmaniasis 6. Malaria.	2	4
Total			23	45= 3 C.H

Second: Practical/Tutorial/Clinical Aspects			
No.	Practical/Tutorial/Clinical topics	No. of Labs	Contact Hours
1	Physiology: Hemoglobin estimation. Blood groups. Clotting time, Bleeding time. Prothrombin time.	5	10
2	Pathology: Anemia. Leukaemia. Lymphoma	7	14
3	Microbiology: Malaria & Toxoplasma. Leishmania, Trypanosoma & Filariasis	3	6
Total		15	30=1 C.H