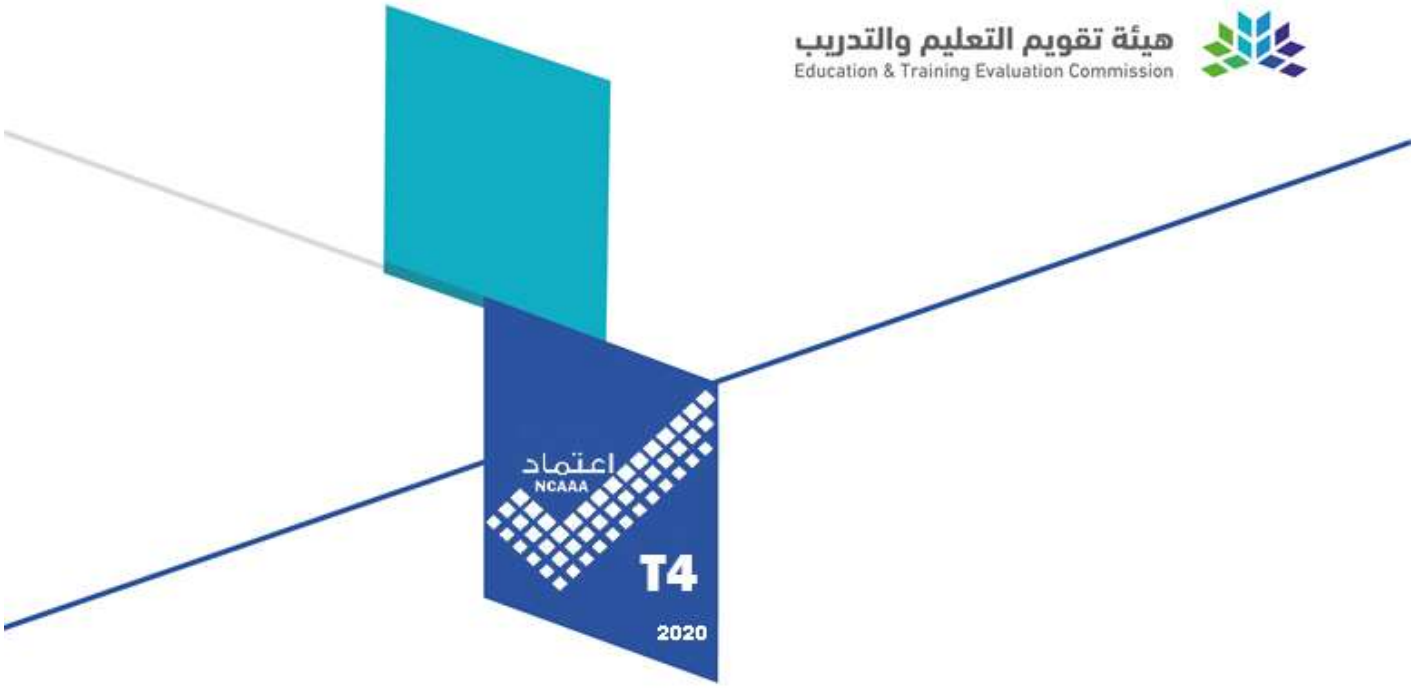
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	Hematopoietic and Lymphatic System Block
Course Code:	HLS122
Program:	Bachelor of Medicine, Bachelor of Surgery (MBBS)
Department:	NA
College:	College of Medicine
Institution:	Alfaisal University

Table of Contents

A. Course Identification

1. Credit hours: 2 (1+2+0)
2. Course type **a.** University ☐ College ■ Department ☐ Others ☐ **b.** Required ■ Elective ☐
3. Level/year at which this course is offered: Sem 2, Year 1
4. Pre-requisites for this course (if any)**:** None
5. Co-requisites for this course (if any)**:** None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	18	53%
2	**TBL, Labs**	16	47%

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	18
2	**Laboratory/Studio**	
3	**Tutorial**	16
4	**Others** (specify)	
	Total	34

B. Course Objectives and Learning Outcomes

1. Course Description

In this block, major concepts related to blood and various blood cells will be addressed. Specific emphasis will be placed on hemoglobin, its synthesis and abnormal synthesis of hemoglobin, hematopoiesis, and classification of anemias, blood types, transfusion, and tissue and organ transplantation. Students shall also be exposed to basic concepts of hemostasis and thrombosis. Further, the various functions of white blood cells and lymphatics will be addressed with an emphasis on their role in resisting infection. It will include issues such as inflammation and immunity. Finally, complementary clinical issues will be introduced, such as classification of anemias, bleeding disorders, and various coagulation deficiencies, thrombotic disorders as well as diseases of leucocytes, spleen, and thymus. This block will include an introduction to approaches to patients with these disorders ensuring vertical integration.

2. Course Main Objective

The HLS 122 Course in year I is directed towards the learning and understanding of functions and cells blood including red cells, white cells and platelets with introduction to basic pathophysiology of blood disorders.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Describe the various constituents of blood, hematopoiesis, function and maturation of red cells, white cells and platelets, blood types, transfusion, tissue and organ transplantation.	PLO1,3
1.2	Describe endothelial function, blood coagulation and discuss the most common abnormalities and complications relating to endothelial dysfunction and failure of hemostasis	PLO1,3,5
1.3	Discuss the general characteristics of leukocytes (neutrophils and macrophages) and their roles in defending the host against infection, including the monocyte-macrophage system and inflammation	PLO1,3,5
1.4	Describe the types of acquired immunity (humoral and cell-mediated), the function of T and B lymphocytes, the nature and function of antibodies, the complement system, and allergy and sensitivity reactions.	PLO1,3
2	**Skills :**	
2.1	Interpret common laboratory investigations including CBC, PT and APTT and apply in various clinical scenarios	PLO5
2.2	Identification of various normal and abnormal blood cells and their appearance and interpretation in various hematological diseases	PLO5
3	**Values:**	
3.1	Adhere to the attendance policy.	
3.2	Maintain professional conduct with colleagues, faculty, and staff.	

C. Course Content

No	List of Topics	Contact Hours
1	Erythrocytes	1
2	Iron Metabolism	1
3	Hemoglobin structure and function	1
4	Blood groups and transplantation	1
5	Haematopoiesis	1
6	Blood Morphology	1
7	Classification of anemia	1
8	Inflammation	1
9	Resistance to infection	1
10	Hemoglobin electrophoresis and Haemoglobinopathies	1
11	Primary lymphatic organs	1
12	Secondary lymphatic organs	1
13	Porphyrin synthesis and Porphyrias	1
14	Leukocyte disorders	1

15	Coagulation	1
16	Platelets & endothelium.	1
17	Basis of hemostasis and thrombosis	1
18	Basis of clinical aspects of blood banking	1
19	TBL 1 &2	8
20	labs	8
Total		34

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Describe the various constituents of blood, hematopoiesis, function and maturation of red cells, white cells and platelets, blood types, transfusion, tissue and organ transplantation.	Lectures, TBLs	Summative assessment
1.2	Describe endothelial function, blood coagulation and discuss the most common abnormalities and complications relating to endothelial dysfunction and failure of hemostasis	Lectures, TBLs	Summative assessment
1.3	Discuss the general characteristics of leukocytes (neutrophils and macrophages) and their roles in defending the host against infection, including the monocyte-macrophage system and inflammation	Lectures, TBLs	Summative assessment
1.4	Describe the types of acquired immunity (humoral and cell-mediated), the function of T and B lymphocytes, the nature and function of antibodies, the complement system, and allergy and sensitivity reactions.	Lectures, TBLs	Summative assessment
2.0	**Skills**		
2.1	Interpret common laboratory investigations including CBC, PT and APTT and apply in various clinical scenarios	Labs	Summative assessment
2.2	Identification of various normal and abnormal blood cells and their appearance and interpretation in various hematological diseases	Labs	Summative assessment
3.0	**Values**		
3.1	Adhere to the attendance policy.		Continuous assessment

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.2	Maintain professional conduct with colleagues, faculty, and staff.		Continuous assessment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	TBL	1, 2	5%
2	Final Exam	3	95%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

The CoM program established its own mentorship program that employs all full-time faculty as mentors. Through this program, every medical student in the program is assigned a mentor at the beginning of their first semester of studies. The program has a broad scope covering academic advising and counseling. The mentors handle all aspects related to academic advising, including academic planning, academic performance review, advice on course drop or withdrawal, study skills, and time management.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Robbins and Cotran Pathologic basis of disease, TENTH Edition
Essential References Materials	Wheater´s Functional Histology; A text and color Atlas; Histology: Ross, Pawlina and Kaye, Lippincott Williams and Wilkins, Textbook of Medical Physiology, Guyton & Hall, Immunology: Doan, T., Melvold, R., Viselli, S., Waltenbaugh, C. Lippincott Williams & Wilkins
Electronic Materials	PowerPoint presentations uploaded on Alfaisal E-learning Portal
Other Learning Materials	E-Learning Web-Sites: • www.hematology.org • teachingcases.hematology.org • library.med.cornell.edu/resources/descriptions/ash.html • www.bloodline.net • Hematology 2009 - American Society of Hematology 2009 - free books online • Medical Search Engines PubMed

	Sites Specifically for Med Students: • MedicalStudent.com • Medscape Med Students • eMedicine.medscape.com

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms, Laboratories
Technology Resources (AV, data show, Smart Board, software, etc.)	AV (Audio-Visual), Smartboard, Moodle (E-learning Management)
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course and Faculty Evaluation Survey	Students	Survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	