



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Allied Medical Sciences Department

LM250 Introduction To Hematology - JNQF Level: 7

Second Semester 2023-2024

Course Catalog

2 Credit Hours. The course will provide students with a background in blood and its components, specifically the formed cellular elements including erythrocytes, leukocytes, and thrombocytes. A detailed description of these elements will be provided with a major emphasis on their generation, structure, function, and metabolism. A considerable portion of the course will be focused on intensive specialized knowledge covering the laboratory procedures for enumeration, examination, and identification of blood cellular components.

Teaching Method: On Campus

Text Book

Title	Hematology: Clinical principles and applications
Author(s)	Bernadette F. Rodak, George A. Fritsma and Kathryn Doig
Edition	5th Edition
Short Name	Ref #1
Other Information	

Instructor

Name	Dr. Jehad Alhmoud
Office Location	-
Office Hours	
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Class Schedule & Room

Section 1:
Lecture Time: Sun, Thu : 11:30 - 12:30
Room: NB49

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction Blood and its Components	1 From Ref #1
Week 2	Hematopoiesis	7 From Ref #1
Week 2	Erythrocytes Structure, function and metabolism	9 From Ref #1
Week 3	Erythrocytes (Hemoglobin)	10 From Ref #1
Week 4	Erythrocytes (Iron Metabolism)	11 From Ref #1
Week 5	Erythrocytes (Production and destruction)	8 From Ref #1
Week 6	Erythrocytes (CBC analysis and red cell indices)	14 From Ref #1
Week 7	Leukocytes (Classification, Structure, and Function)	12 From Ref #1
Week 8	Leukocytes (Leukopoiesis)	12 From Ref #1
Week 10	Hemostasis (Megakaryopoiesis)	13 From Ref #1
Week 11	Platelets (Structure and Function)	13 From Ref #1
Week 12	Hemostasis (Coagulation System)	37 From Ref #1
Week 13	Hemostasis, Coagulation Regulatory Mechanisms and Fibrinolysis	37 From Ref #1
Week 14	Laboratory Evaluation of Hemostasis	42 From Ref #1
Week 15	Pediatric Hematology	45 From Ref #1

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Explain the hematopoiesis process, hematopoiesis ontogeny, and its regulatory mechanisms [1SLO1] [1L7K1]	20%	
Describe the structure, function, metabolism, and life cycle of cellular blood elements: erythrocytes, leukocytes, and thrombocytes [1SLO2] [1L7K1]	20%	
Define the hemostatic system as a host defense mechanism and understand its regulation [1SLO2] [1L7S1]	20%	
Experience and be familiar with the routine and specialized laboratory techniques for the evaluation of blood cells [1SLO3] [1L7S2]	20%	
Interpret and analyze obtained results from hematological techniques and implement these for quality control and quality assurance measures [1SLO6] [1L7S3]	20%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
20	40	20			20						

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7S3
40	20	20	20

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