Jordan University of Science and Technology

Faculty of Applied Medical Sciences

Allied Medical Sciences Department

LM451 Immunohematologhy And Blood Banking - JNQF Level: 7

First Semester 2023-2024

Course Catalog
1 Credit Hours. The mission of blood banks is to provide safe blood and blood components for safe transfusion to the proper recipients who are suffering from specific blood disorders. To achieve so, a series of technical procedures needed to be performed before the release of blood/ blood components to ensure safe blood donation and transfusion. This course intends to provide the students with the basics of immunohematology principles and applications including blood grouping, pre-transfusion testing, therapeutic approaches, and adverse reactions to blood donation and transfusion.
Teaching Method: Blended

Text Book	
Title	Immunohematology principles and practice
Author(s)	Eva D Quinely
Edition	3rd Edition
Short Name	Ref #1
Other Information	

Instructor	
Name	**Dr. Jehad Alhmoud**
Office Location	-
Office Hours	Mon : 10:00 - 11:00 Tue : 10:00 - 14:00 Wed : 10:00 - 11:00 Thu : 12:30 - 14:30
Email	jfalhmoud@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Tue : 08:30 - 09:30
Room: NB49

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Introduction: Immunohematology and blood donation	**1+3** From **Ref #1**
Week 2	Blood grouping systems: ABO	**9** From **Ref #1**
Week 3	Blood grouping systems: Rh	**10** From **Ref #1**
Week 4	Other Blood grouping systems	**11** From **Ref #1**
Week 5	Antihuman globulin AHG (Coomb?s) test: Principle and application	**6** From **Ref #1**
Week 6	Pre-transfusion testing: Cross-transfusion and compatibility	**6+8** From **Ref #1**
Week 7	Pre-transfusion testing: transfusion-transmitted diseases	**15** From **Ref #1**
Weeks 8, 9	Transfusion therapeutic approaches/ Adverse reactions of blood transfusion	**13** From **Ref #1**
Week 10	Blood Hemolytic disease of the newborn/ Quality control and quality assurance in blood banking	**14+18** From **Ref #1**
Week 11	Automation in hematology and blood bank	**2** From **Ref #1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
To understand the basic principles and applications in immunohematology [1SLO1] [1L7K1]	20%	
To understand the flow work and the routine blood bank procedures [1SLO2] [1L7K1]	20%	
To describe the process of blood donation and preparation of blood components. [1SLO2] [1L7S1]	20%	
To be aware of the adverse reactions of blood donation and administration [1SLO3, 1SLO4] [1L7S2]	10%	
To understand and experience all pretransfusion tests including blood typing, cross-matching, antibody screening, and identification [1SLO6] [1L7S3, 1L7C4]	30%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
20	40	5	5		30						

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S2	L7S3	L7C4
40	20	10	15	15

Evaluation	
Assessment Tool	**Weight**
Midterm Exam	50%
Final Exam	50%

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