

Ministry of Higher Education and Scientific Research



Blood banking 2023-2024

College/ Institute	Paitaxt Private Institute	
Department	Pathological Analysis	
Module Name	Blood banking	
Semester	2 nd	
Stage	2 nd	
Weekly hours	4	
Weekly hours (Theory)	(2)hr Class	()hr Workload
Weekly hours (Practical)	(2)hr Class	()hr Workload
Lecturer (Theory)		
E-Mail		
Lecturer (Practical)		
Email		

Course

Emphasis will be on the antigen-antibody reactions related to human red blood cell and human diseases and the general characteristics of different human blood group antigens.

Recommended Texts:

1. Textbook of Blood Banking and Transfusion Medicine Sally Rudmann
2. Basic and Applied Concepts of Immunohematology Kathy Blaney and Paula Howard
3. Essentials of Immunohematology, John C. Flynn, Jr. W. B. Saunders

Require Materials

Lecture Notes and Lab Exercises

Theoretical part

Date	Lecture Topic	Chapter in Text (Rudmann)
W 3/25	History of blood banking Immunology and Blood typing	2
M 4/2	Avidity and affinity of IgG, IgM and IgA Factors affecting the antibody and RBC antigens reaction	2
W 4/9	Direct and Indirect Comb's Test	11
M 4/18	Blood preservatives and cryopreserved blood Effects of red blood cell infusion on race time/Cases	10
W 4/25	EXAM I	
M 5/2	ABO blood group system	3
\V 5//9	Genetics of ABO blood group system	3
M 5/6	Secretary Substances	4
\V 5/11	Irregular antibodies detection	12
M 5/18	Compatibility Testing for blood transfusion	11
	EXAM 2	

Practical Lab

1. ABO cell and serum grouping by tube method
2. Rh typing by saline, enzyme and albumin methods.
3. Preparation LISS.
4. Preparation of Papain cystein.
5. Routine major and minor cross-matching.
6. Direct and Indirect antiglobulin method.
7. Rh typing by indirect antiglobulin method.
8. Anti-A, anti-B and anti-D titre saline phase.
9. Gel technology (Demonstration) Hb electrophoresis.
10. Investigations of haemolytic transfusion reaction.
11. Different methods of Detection of blood group antibodies.
12. Identification of blood group antibodies