

Practical WBCs disorder				
NO.	Tasks/ Experiments	Sub title	Number of Weeks	Contact hours
1	Introduction to laboratory diagnosis for WBCs disorder	Classification of WBCs disorder and its Indication from CBCs and blood film	1	2
2	Normal leucopoiesis stages	microscopic pictures	1	2
3	Peripheral blood smear morphology for benign change		1	2
4	Peripheral blood smear morphology for malignant myeloid change		1	2
5	Peripheral blood smear morphology for malignant lymphoid change		1	2
6	Reactive lymphocyte change with lymphoma change on peripheral blood smear		1	2
7	cytochemical stains		1	2
8	Bone marrow smear technique and fixation		1	2
9	Bone marrow examination	Smear, fixation, microscopic analysis and report form	1	2
10	Immunophenotyping classification and examination		1	2
11	Flowcytometry		1	2
12	Gene expression/mutation analysis		1	2
13	Chromosome study and cytogenetic analysis		1	2
Number of Weeks /and Units Per Semester				

Practical RBCs disorder				
NO.	Tasks/ Experiments	Sub title	Number of Weeks	Contact hours
1	Introduction to Laboratory diagnosis for RBCs disorder		1	2
2	Manual CBC and peripheral blood film fixation and staining		1	2
3	Hematology stain	Type of Stain, composition, preparation and used	1	2
4	CBC Automation	CBC automation principle, artificial result error from CBC and it's correction technique and blood film indications	1	2
5	Normal erythropoiesis stages	microscopic pictures and WBCs correction	1	2
6	Blood film report	Anisocytosis, poikilocytosis, abnormal RBC Shape and inclusion	3	6
7	Retic count		1	2
8	Special Chemical test in hematology	Iron, TIPC, transferrin, ferritin, G6PD, vit B12, folate .. etc.	2	2
9	Special hematology test	Osmotic fragility, sickling, solubility, ham test .. ect.	2	2
10	Electrophoresis		1	2
11	Bone marrow examination and report		1	2
12	Quality Assurance in general hematology	Safety practice Pre analytic, analytic, and post analytic error source Reliability check for CBC and other hematology result	1	2
Number of Weeks /and Units Per Semester				

Practical blood bank				
NO.	Tasks/ Experiments	Sub title	Number of Weeks	Contact hours
1	Introduction to blood bank practical	Reagent, equipment and different principle of serology reaction	1	2
2	RBCs washing and cell suspension preparation		1	2
3	Blood grouping	Slide and tube (foreword and reverse)	1	2
4	Blood sub group	Detection and reagent used	1	2
5	Weak D positive techniques		1	2
6	ABO blood group Discrepancy	Detection and problem solving	1	2
7	Comb's test	DAT, IAT	1	2
8	Ab titration		1	2
9	Ab screening and identification		2	4
10	Ab elusion techniques		1	2
11	Pre transfusion tests and Crossmatching		1	2
12	Blood component preparation and preservation	Component and PRP preparation	1	2
13	Advance technique in blood bank	Apheresis, automation .. etc.	1	2
14	Quality Assurance and infection prevention control in blood bank		1	2
Number of Weeks /and Units Per Semester				

Hospital training

Practical hemostasis/coagulation				
NO.	Tasks/ Experiments	Sub title	Number of Weeks	Contact hours
1	Introduction to laboratory homeostasis/coagulation study tests		1	2
2	Screening test Primary homeostasis	A. Plt count: 1- Manually 2- automation with plt indices and it's indication 3- semi-quantity by peripheral smear B. Plt function screen test for: 1. bleeding time 2. screen for plt aggregation	1	2
3	Bone marrow analysis for plt and megakaryocyte disorder		1	2
4	Plt function test	1. Tests for General functions (adhesion, activation, and aggregation) 2. Test for specific abnormality	2	4
5	Secondary homeostasis screening test	Clotting time, PT, aPTT, TT, Reptile's test .. etc.	1	2
6	Mixing study		1	2
7	Factor assay		1	2
8	Von Willebrand disease classification and diagnostic tests		1	2
10	Advance techniques for homeostasis study	Flowcytometry (immunophenotyping) and genetic related test	1	2
11	Quality assurance in homeostasis/coagulation lab		1	2
Number of Weeks /and Units Per Semester				