Blood bank Section:

1. Training Description:
Directed clinical training in Blood bank clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.

- Number of weeks: 5 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training, and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Demonstrate professionalism in clinical specimens processing, results' reporting, and interpretation in Blood bank Lab.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Demonstrate skills in utilizing modern and smart devices in Blood bank Lab for quick and accurate identification of Blood group antigens and antibodies.	Use accurately advance and smart devices for analyzing the clinical specimens.
3	**Values:**	
3.2	Respect the confidentially of patient test results. in Blood bank lab.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently in Blood bank lab.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Demonstrate professionalism in clinical specimens processing, results' reporting, and interpretation in Blood bank Lab.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Demonstrate skills in utilizing modern and smart devices in Blood bank Lab for quick and accurate identification of Blood group antigens and antibodies.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Respect the confidentially of patient test results. in Blood bank lab.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently in Blood bank lab.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Blood bank specialist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Blood Bank Evaluation Form

Training Site: …… **Intern:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades: A B C D F						
Under minimal supervision, the student was able to:	5	4	3	2	1	NA
I. Skills domain: Blood Bank						
1. Apply general safety basics during the daily work.						
2. Specimen Processing and handling:						
a. Access specimens accurately and use correct numbering or code system and recognize unacceptable or inappropriate specimens,						
b. Register specimens in the laboratory information system and apply proper storage of specimens for later testing.						
3. Performs QC on routinely used blood bank reagents , refrigerators , freezers and run daily controls and maintenance for blood bank analyser.						
4. Analysis procedure: Automated blood bank analyser.						
a. Prepare and set-up the analyser for analysis.						
b. Operate the instrument efficiently and accurately interpret test results.						
5. Prepare red blood cell suspensions for testing.						
6. Perform ABO grouping (forward and reverse) test and interpret the results.						
7. Perform D typing and weak D testing tests and interpret the results.						
8. Perform antibody screen test and interpret the results.						
9. Perform antibody identification test and interpret the results.						
10. Performs compatibility testing for specimens requiring immediate spin or antiglobulin crossmatch.						
11. Prenatal Testing:						
a. Perform a prenatal work up according to hospital procedure (ABO/Rh type and Ab screen) and accurately interpret the results.						

b. Identify any antibodies and their significance to the fetus.						
12. Perform ABO/Rh type and direct antiglobulin test on cord blood samples and identify potential causes for Hemolytic Disease of the Newborn (Cord Blood testing).						
13. Blood donation procedure:						
a. follow the standard procedure for screening and selection prospective blood donor.						
b. Perform venipuncture for blood donation.						
14. Prepare Blood components (Packed RBCs, platelet concentrate and FFP**) and select appropriate blood product for transfusion.**						
II. Values domain: Blood Bank						
1. Consistently arrive in the Blood bank at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency Checklist:	..... / 100 =.....%					
The student should achieve more than 60% (60 points) to achieve success in the Blood bank section						

ATTENDANCE

Number of days tardy: _____ Dates:
Reason for tardiness:

Make-up Dates:

Number of days absent: _____ Dates:
Reason for Absence(s):

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:..... **Date:**.....

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Assigned teaching staff: ..... **Date:**.....

Assigned teaching staff's Signature: .....

Clinical Chemistry Section:

1. Training description:
Directed clinical training in Clinical Chemistry; clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.
- Number of weeks: 9 weeks.
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Analyze the ability to perform basic skills of Clinical Chemistry lab and to manage critical challenges in order to achieve accurate and reliable results.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in Clinical Chemistry lab.	Use accurately advance and smart devices for analyzing the clinical specimens.
3	**Values:**	
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others in Clinical Chemistry lab.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in Clinical Chemistry lab.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Analyze the ability to perform basic skills of Clinical Chemistry lab and to manage critical challenges in order to achieve accurate and reliable results.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in Clinical Chemistry lab.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in Clinical Chemistry lab.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Clinical Chemist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Clinical Chemistry Evaluation Form

Training Site: …… **Student:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades: A	B	C	D	F	
Under minimal supervision, the student was able to:	5	4	3	2	1	NA
I. Skills domain: Clinical Chemistry						
1. Apply general safety basics during the daily work.						
2. Specimen Processing:						
a. Access specimens accurately and use correct numbering or code system and recognize unacceptable or inappropriate specimens,						
b. Register specimens in the laboratory information system and apply proper storage of specimens for later testing.						
3. Involve in Quality control of clinical chemistry:						
a. Demonstrate effective skills in preparation of quality control materials and run daily controls and Construction of control chart correctly analyser.						
b. Accurately apply Westgard rules and know the criteria of accepting or rejecting the quality control results.						
4. Analysis procedure: Fully automated chemical analyser:						
a. Accurately set-up of the analyser for analysis and operate the instrument efficiently.						
b. Understand how and why machines are calibrated & know the criteria of accepting or rejecting the calibration and understand principles & the procedure of tests efficiently.						
c. Accurately perform preparation procedures for Samples/reagents, accurately, interpret the results and deal with critical and panic lab results.						
5. Performs various testing procedures (liver function tests, kidney function test, Metabolic panel, Cardiac function tests)						
6. Body Fluid Analysis Technical Competencies:						
i- Urinalysis Technical Competencies						

a. Describe physical appearance of urine samples and uses reagents to analyse urine for glucose, bilirubin, ketone & protein.						
b. Discuss and list normal and abnormal results.						
ii- CSF and serous fluid Analysis Competencies						
a. Report abnormal physical characteristics and follow specific protocol for processing of CSF and serous fluid samples						
b. Accurately interpret the results.						
7. Special analysis procedures:						
i- Blood gas analyser:						
a. Correctly perform sample preparation and follow sample precautions and understand principles of tests and instrument setup.						
b. Demonstrate ability for preparation and run of blood gas analyser and interpret results accurately & understand troubleshooting of the results.						
ii. Immunoassay: (e.g., tumour markers, cardiac markers, hormone profile etc.):						
a. Correctly perform sample preparation and follow sample precautions and understand principles of tests and instrument setup.						
b. Demonstrate ability for preparation and run of immunoassays and interpret results accurately & understand troubleshooting of the results						
8. Understand the importance of POCT units (point of care testing) in ICU.						
II. Value domain: Clinical Chemistry						
1. Consistently arrive in the Blood bank at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency Checklist:	……. / 100 = ……%					
The student should achieve more than 60% (100 points) to achieve success in the Clinical chemistry section						

Attendance

Number of days tardy: _____ Dates:
Reason for tardiness:

Number of days absent: _____ Dates:
Reason for Absence(s):

Make-up Dates:

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:…… **Date:**……

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Assigned teaching staff: …… **Date:**……

Assigned teaching staff's Signature: ……..

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Overall Internship Evaluation Form

Intern:	
Hospital:	
Training period:	

Overall evaluation			
Laboratory section	**Marks (points)**	**Pass**	**Fail**
Phlebotomy and Reception	…….. /100		
Hematology	…….. /100		
Immunology and Serology	…….. /100		
Blood bank	…….. /100		
Microbiology	…….. /100		
Molecular biology	…….. /100		
Clinical Chemistry	…….. /100		
Histopathology and Cytopathology	…….. /100		
Total	…….. /800		
*A minimum evaluation score of 60% is required in each clinical placement undertaken and the overall pass score of the Intern Program. Students who score below 60% in a particular clinical placement will be required to repeat the training in that particular area.			

Approved Leaves/ Days	Official =	Emergency =	Other =	**Total =** days

Name	**Dated Signature**	**Official Stamp**
Intern:		
Training, Alumni& Internship Unit Supervisor:		Please send in **Signed& Sealed** envelope.
☐ **Approved**	☐ **Not approved**	

Haematology Section:

1. Training description:

Directed clinical training in Haematology ; clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.

- Number of weeks: 6 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Demonstrate professionalism in clinical specimens processing, reporting, and interpretation in Haematology Lab.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Demonstrate skills in utilizing modern and smart devices in Haematology Lab for quick and accurate diagnosis of Haematologicl disorders	Use accurately advance and smart devices for analyzing the clinical specimens
3	**Values:**	
3.2	Respect the confidentially of patient test results. .	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Demonstrate professionalism in clinical specimens processing, reporting, and interpretation in Haematology Lab.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Demonstrate skills in utilizing modern and smart devices in Haematology Lab for quick and accurate diagnosis of Haematological disease.	Practical work / group discussions	Practical evaluation Checklists, case presentation
3.0	**Values**		
3.2	Respect the confidentially of patient test results. .	Case Discussion.	Practical evaluation Checklists, lab discussion
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Haematologist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Hematology Evaluation Form

Training Site: …… **Intern:** ……...

Rotation Dates (from/to): …… **Evaluator:**…….....

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades: A	B	C	D	F	
Under minimal supervision, the student was able to:	**5**	**4**	**3**	**2**	**1**	**NA**
I. Skills domain: Haematology						
1. Apply general safety basics during the daily work.						
2. Performs QC on routinely used hematolog reagents and run daily controls and maintenance for hematology analysers.						
3. Automated Haematology analyzer:						
a. Correlate and evaluate scatter grams for normal and abnormal values.						
b. Performs automated reticulocyte counts.						
4. Microscopic examination of blood film:						
a. Prepare proper blood smears with identification of causes of a bad smear and stain peripheral blood smears with standard stains.						
b. Prepare and stain films using supravital stain for reticulocyte examination.						
c. Identify different subsets of normal leukocytes and perform differential WBC count and identify abnormal morphology of white cells						
d. Estimate platelet count from the film and comment on RBCs morphology.						
5. Coagulation Studies:						
a. Evaluation of specimen suitability for testing (not clotted sample).						
b. Run patient specimens for routine coagulation testing (PT, PTT and INR) and interpret the results.						
c. Run fibrinogen/thrombin and D-dimer and interpret the results.						
d. Perform mixing studies using (PT, PTT, and TT) and Perform factor assay and Identification coagulation inhibitors and interprets outcome.						

6. Run automated Hb electrophoresis and interpret the results.						
7. Manual techniques and special tests.						
a. Perform ESR (erythrocyte sedimentation rate).						
c. Perform Screening of sickle cell anaemia (if applicable)						
d. Perform screen test for G6PD deficiency and perform Osmotic fragility test (if applicable)..						
8. Other techniques (if applicable).						
a. Operation of Flow cytometry:						
i. Prepare sample for surface and cytoplasmic staining and Start sample acquisition and perform cell gating and interpret the results.						
b. Prepare proper bone marrow smears and stain bone marrow smears with standard stains .						
II. Value domain: Haematology						
1. **Consistently arrive in the Hematology lab at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.**						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency Checklist:	……. / 100 = ……%					
The student should achieve more than 60% (60 points) to achieve success in the Haematology section						

Attendance

Number of days tardy: _____ Dates:
Reason for tardiness:

Make-up Dates:

Number of days absent: _____ Dates:
Reason for Absence(s):

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:……. **Date:**…….

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Assigned teaching staff: …… **Date:**……

Assigned teaching staff's Signature: ……..

Histopathology and Cytopathology Section:

1. Training description:
Directed clinical training in Histopathology and Cytopathology; clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.
- Number of weeks: 7 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Analyze the ability to perform basic skills Histopathology and Cytopathology lab and to manage critical challenges in order to achieve accurate and reliable results.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in Histopathology and Cytopathology lab.	Use accurately advance and smart devices for analyzing the clinical specimens.
3	**Values:**	
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others in Histopathology and Cytopathology.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in Histopathology and Cytopathology lab.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Analyze the ability to perform basic skills Histopathology and Cytopathology lab and to manage critical challenges in order to achieve accurate and reliable results.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in Histopathology and Cytopathology lab.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others in Histopathology and Cytopathology.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in Histopathology and Cytopathology lab.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Clinical Histologist and Cytopathologist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Histopathology and Cytopathology Evaluation Form

Training Site: …… **Student:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades:	A	B	C	D	F	
Under minimal supervision, the student was able to:	5	4	3	2	1	NA
I. Skills domain: Histopathology and Cytopathology lab						
1. Apply general safety basics implementation during the daily work:						
2. Specimen Processing:						
a. Access specimens accurately and use correct numbering or code system and recognize unacceptable or inappropriate specimens, take appropriate action.						
b. Register specimens in the laboratory information system and apply proper storage of specimens for later testing.						
3. Involve in Quality control of Histopathology and Cytopathology lab:						
a. Participate in quality control procedures.						
b. Evaluate acceptability of quality control						
4. Analysis procedure: Fully automated Histopathology and Cytopathology analyser:						
a. Accurate set-up of the analyser for analysis.						
b. Accurately perform preparation procedures for Samples/reagents and operate the instrument efficiently.						
c. Accurately interpret test results and deal with critical laboratory results & panic values.						
5. Performs various testing procedures in Histopathology and Cytopathology lab.						
6. Cytology samples Analysis Technical Competencies:						
i- Body fluids Cytology Technical Competencies						

a. Describe and employ safe management of Body fluids samples and use different cytological techniques in diagnosis Body fluids samples.						
b. Discuss and list normal and abnormal results.						
ii- Cytology Pap smear Analysis Competencies						
a. Follow specific protocol for processing of Cytology Pap Smear samples.						
b. Report abnormal characteristics and accurately interpret the results						
7. Carry out automatic/manual tissue processing.						
a. Understand how to fix tissue samples and remove water from the tissue and replace it with melted paraffin wax and know how to cut the tissue into thin slices to be examined under a microscope.						
b. Know how to orient tissue and place it in a wax mold to create a paraffin block for sectioning.						
c. Understand how to take sections of tissue and place them onto a microtome.						
8. Perform routine staining in Histopathology and Cytopathology lab.						
9. Perform Special staining and diagnostic enzyme histochemistry and carry out diagnostic Immunohistochemistry (Tumor Markers).						
II. Values domain: Histopathology and Cytopathology lab						
1. Consistently arrive at the Histopathology and Cytopathology lab at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency: Checklist:	..... / 100 =.....%					
The student should achieve more than 60% (60 points) to achieve success in the Histopathology and Cytopathology section						

ATTENDANCE

Number of days tardy: _____ Dates:
Reason for tardiness:

Number of days absent: _____ Dates:
Reason for Absence(s):

Make-up Dates:

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:..... **Date:**.....

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Assigned teaching staff: ..... **Date:**.....

Assigned teaching staff's Signature: .....

Immunology and serology Section:

1. Training description:

Directed clinical training in Immunology and Serology clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.

- Number of weeks: 3 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Analyze the ability to perform basic skills of immunology and serology lab and to manage critical challenges in order to achieve accurate and reliable results.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in immunology and serology lab.	Use accurately advance and smart devices for analyzing the clinical specimens.
3	**Values:**	
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others in immunology and serology lab.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in immunology and serology lab.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Analyze the ability to perform basic skills of immunology and serology lab and to manage critical challenges in order to achieve accurate and reliable results.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Use cooperation skills to complete the practical work and accurately utilize smart devices for analyzing the clinical specimens in immunology and serology lab.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Demonstrate the ability to interpret data, handle stressful situations efficiently in immunology and serology lab.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Immunology specialist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Immunology and Serology Evaluation Form

Training Site: …… **Intern:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades: A	B	C	D	F	
Under minimal supervision, the student was able to:	**5**	**4**	**3**	**2**	**1**	**NA**
I. Skills domain: Immunology and Serology						
1. Apply general safety basics during the daily work.						
2. Specimen Processing and handling:						
a. Access specimens accurately and use correct numbering or code system.						
b. Recognize unacceptable or inappropriate specimens, take appropriate action.						
c. Register specimens in the laboratory information system and apply proper storage of specimens for later testing.						
3. Participate in Quality control (QC) of Immunology and Serology lab:						
a. Perform QC on routinely used serology reagents and run daily controls and maintenance for serology analyser.						
b. Review QC and preventative maintenance procedures for serology analysers.						
4. Analysis procedure: Automated serology analyser						
a. Prepare and set-up the analyser for analysis.						
b. Assist with preventative maintenance on the instrument.						
c. Understand how and why machines are calibrated & know the criteria of accepting or rejecting the calibration.						
d. Understand principles & the procedure of tests efficiently.						
e. Accurately apply preparation procedures for reagents.						
f. Operate the instrument efficiently and accurately interpret test						
5. Prepare specimens for serological testing.						
6. Perform rapid agglutination tests (ASOT, CRP and RA factor) and interpret the results						

7. Test donor blood for infectious diseases (HIV, Hepatitis B serological markers, and RPR, VDRL, TPHA) and interpret results.						
8. Perform serological tests for diagnosis of viral diseases (HIV, Hepatitis, Rubella, CMV) on patient specimen.						
9. Perform TORCH tests and interpret the findings.						
10. Perform ANA profile test and interpret the results.						
II. Value domain: Immunology and Serology						
1. Consistently arrive at the Immunology and Serology lab at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency Checklist:	……. / 100 =……%					
The student should achieve more than 60% (60 points) to achieve success in the Immunology and Serology section						

Attendance

Number of days tardy: _____ Dates:
Reason for tardiness:

Number of days absent: _____ Dates:
Reason for Absence(s):

Make-up Dates:

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:……. **Date:**…….

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Assigned teaching staff: …… **Date:**……

Assigned teaching staff's Signature: ……..

Molecular biology Section:

1. Training description:
Directed clinical training in Molecular biology; clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.
- Number of weeks: 2 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Demonstrate professionalism in clinical specimens processing, reporting, and interpretation in Molecular biology lab.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Demonstrate skills in utilizing modern and smart devices in Molecular biology Lab for quick and accurate diagnosis of infectious diseases and other disorders.	Use accurately advance and smart devices for analyzing the clinical specimens
3	**Values:**	
3.2	Respect the confidentially of patient test results. .	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Demonstrate professionalism in clinical specimens processing, reporting, and interpretation in Molecular biology Lab.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Demonstrate skills in utilizing modern and smart devices in Molecular biology Lab for quick and accurate diagnosis of infectious disease.	Practical work / group discussions	Practical evaluation Checklists, case presentation
3.0	**Values**		
3.2	Respect the confidentially of patient test results. .	Case Discussion.	Practical evaluation Checklists, lab discussion
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Molecular biologist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Molecular biology Evaluation Form

Training Site: …… **Student:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades:	A	B	C	D	F	
Under minimal supervision, the student was able to:	**5**	**4**	**3**	**2**	**1**	NA
I. Skills domain: Molecular biology						
1. Apply general safety basics during the daily work.						
2. Access specimens accurately and use correct numbering or code system.						
3. Recognize unacceptable or inappropriate specimens and take appropriate action.						
4. Register specimens in the laboratory information system.						
5. Properly Store samples in accordance with workplace and test method requirements.						
6. Choose and organize reagents, materials, and equipment required for process of assigned clinical specimen for molecular lab testing.						
7. Apply Molecular techniques in diagnosis of viral diseases:						
a. Extract nucleic acid from different specimens using appropriate methods (manual and automated).						
b. Prepare and set-up automated PCR analyser for analysis.						
c. Prepare and set up set up thermocyclers.						
d. Assist with preventative maintenance on the instruments.						
e. Understand how and why machines are calibrated & know the criteria of accepting or rejecting the calibration.						
f. Understand principles & the procedure of tests efficiently.						
g. Accurately perform preparation procedures for Samples/reagents.						

h. Operate the instruments efficiently.						
i. Accurately interpret test results for HIV, HBV, and HBC.						
8. Perform molecular testing in diagnosis of cancers and genetic disorders and interpret the results.						
9. Participate in Quality control (QC) of Molecular biology lab:						
a. Perform QC on routinely used molecular biology reagents and run daily controls and maintenance for serology analyser.						
b. Review QC and preventative maintenance procedures for molecular biology analysers.						
II. Values domain: Molecular biology						
1. Consistently arrive at the Molecular biology lab at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons in Molecular biology lab.						
Total number of points from the Competency Checklist:	……. / 100 = ……%					
The student should achieve more than 60% (60 points) to achieve success in the Molecular biology section						

ATTENDANCE

Number of days tardy: _____ Dates:
Reason for tardiness:

Make-up Dates:

Number of days absent: _____ Dates:
Reason for Absence(s):

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:……. **Date:**…….

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Assigned teaching staff: …… **Date:**……

Assigned teaching staff's Signature: ……..

Phlebotomy Section:

1. Training description:
Directed clinical training in phlebotomy covering aspects of safety procedures, hygiene, capillary puncture, venipuncture, arterial access, and non-blood collections of body fluids.

2. Training duration and activities.
- Number of weeks: 3 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Demonstrate professionalism in Phlebotomy and management critical challenges in order to achieve accurate and reliable results.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Use cooperation skills to complete the specimen's collection and accurately utilize equipment for collecting the clinical specimens in phlebotomy.	Use accurately advance and smart devices for obtaining the clinical specimens.
3	**Values:**	
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others in phlebotomy.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Demonstrate the ability to approach and identify patients, handle stressful situations efficiently in phlebotomy.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Demonstrate professionalism in Phlebotomy and management critical challenges in order to achieve accurate and reliable results.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Use cooperation skills to complete the specimen's collection and accurately utilize equipment for collecting the clinical specimens in phlebotomy.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Perform personal integrity, respect, honesty, Islamic ethical behavior and ability to communicate effectively when dealing with others.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Demonstrate the ability to approach and identify patients, handle stressful situations efficiently in phlebotomy.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Hematology specialist
2	**Field Supervisor**	Assigned – Phlebotomist/ Lab supervisor

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Phlebotomy Evaluation Form

Training Site: …… **Intern:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades:	A	B	C	D	F	
Under minimal supervision, the student was able to:	5	4	3	2	1	NA
I. Skills domain: Phlebotomy						
1. Approach the patient in a friendly manner and identify self as a medical laboratory student who needs to obtain a blood sample.						
2. Identify patients according to the lab protocol and label tubes.						
3. Checks testing requirements (ie fasting).						
4. Follow appropriate methods for venepuncture including:						
a. Select, prepare and organize sample collection equipment.						
b. Correctly identify and select vein.						
c. Prepare venepuncture site.						
d. Fill tubes in correct order.						
e. Properly handle collected blood.						
f. Properly dispose used equipment.						
5. Follow the appropriate universal precautions protocol when drawing blood and collecting specimens.						
6. Provide patients with the right type container for collection of body fluids specimens.						
7. Follow procedures for labelling of body fluid samples. and transporting of body fluid specimens.						
8. Follow procedures for transporting of body fluid specimens.						
9. Consistently clean equipment and work counter and keep the work area well supplied.						
10. Handle patient specimens carefully to avoid contamination of the specimen and himself or others in the phlebotomy.						
11. Consistently adheres to safety rules in all areas of the phlebotomy.						

12. Offer assistance to others in the phlebotomy when his or her work is completed or when otherwise appropriate.						
13. Performs appropriate record-keeping.						
II. Value domain: Phlebotomy						
1. Consistently arrive at the phlebotomy at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient and follow oral/written directions.						
Total number of points from the Competency Checklist:	……. / 100 = ……%					
The student should achieve more than 60% (60 points) to achieve success in the phlebotomy section						

Attendance

Number of days tardy: _____ Dates:
Reason for tardiness:

Number of days absent: _____ Dates:
Reason for Absence(s):

Make-up Dates:

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:……. **Date:**……..

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Assigned teaching staff: …… **Date:**……

Assigned teaching staff's Signature: ……..

Blood bank Section:

1. Training description:
Directed clinical training in Blood bank clinical specimens' collection, laboratory procedures and methods, problem-solving, quality assurance, results reporting, preventive maintenance, and safety.

2. Training duration and activities.
- Number of weeks: 5 weeks
- Distribution of activities are highlighted in the evaluation form attached below.

3. Pre-requisites to join internship (if any)**:** completion of all courses in the study plan.

A. Training Outcomes, Training and Assessment Methods

1. Training Outcomes (TOs)

	TOs	Aligned PLOs
1	**Knowledge and Understanding**	
2	**Skills:**	
2.2	Demonstrate professionalism in clinical specimens processing, results' reporting, and interpretation in Blood bank Lab.	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
2.3	Demonstrate skills in utilizing modern and smart devices in Blood bank Lab for quick and accurate identification of Blood group antigens and antibodies.	Use accurately advance and smart devices for analyzing the clinical specimens.
3	**Values:**	
3.2	Respect the confidentially of patient test results. in Blood bank lab.	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team.
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently in Blood bank lab.	Demonstrate the ability to handle stressful situations calmly and efficiently.

2.Alignment of training Outcomes with Training Activities and Assessment Methods

Code	Training Outcomes	Training Activities	Assessment Methods
1.0	**Knowledge and Understanding**		
2.0	**Skills**		
2.2	Demonstrate professionalism in clinical specimens processing, results' reporting, and interpretation in Blood bank Lab.	Practical work, group discussions, case studies	Practical evaluation Checklists, case presentation
2.3	Demonstrate skills in utilizing modern and smart devices in Blood bank Lab for quick and accurate identification of Blood group antigens and antibodies.	Practical work / group discussions	Practical evaluation Checklists, lab discussion
3.0	**Values**		
3.2	Respect the confidentially of patient test results. in Blood bank lab.	Case Discussion.	Practical evaluation Checklists, case presentation
3.3	Perform all assigned tasks willingly and handle stressful situations calmly and efficiently in Blood bank lab.	Assigned leading Practical work	Checklists

B. Assessment Responsibilities

No	Category	Assessment Responsibility
1	**Teaching Staff**	Assigned teaching staff – Blood bank specialist
2	**Field Supervisor**	Assigned – Laboratory specialist/ Lab supervisor

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Blood Bank Evaluation Form

Training Site: …… **Intern:** ……...

Rotation Dates (from/to): …… **Evaluator:**……...

Instructions to evaluator:

The following evaluation items represent the values, skills, and professional outcomes expected from the intern by the completion of each of his/her training sessions. Please rate the intern's performance credit score from poor to excellent. If the evaluative criterion is not applicable, please write **NA** in the remarks column. If you have any comments on the intern's performance you can write them down in the comments space.

Rating system:

Credit score	Balance	Score
Excellent (A)	Pass with outstanding performance	5
Very good (B)	Pass with appreciated performance	4
Fair (C)	Pass with accepted performance	3
Poor (D)	Poor	2
Fail (F)	Fail and need to repeat the training session	1

Grades: A B C D F						
Under minimal supervision, the student was able to:	5	4	3	2	1	NA
I. Skills domain: Blood Bank						
1. Apply general safety basics during the daily work.						
2. Specimen Processing and handling:						
a. Access specimens accurately and use correct numbering or code system and recognize unacceptable or inappropriate specimens,						
b. Register specimens in the laboratory information system and apply proper storage of specimens for later testing.						
3. Performs QC on routinely used blood bank reagents , refrigerators , freezers and run daily controls and maintenance for blood bank analyser.						
4. Analysis procedure: Automated blood bank analyser.						
a. Prepare and set-up the analyser for analysis.						
b. Operate the instrument efficiently and accurately interpret test results.						
5. Prepare red blood cell suspensions for testing.						
6. Perform ABO grouping (forward and reverse) test and interpret the results.						
7. Perform D typing and weak D testing tests and interpret the results.						
8. Perform antibody screen test and interpret the results.						
9. Perform antibody identification test and interpret the results.						
10. Performs compatibility testing for specimens requiring immediate spin or antiglobulin crossmatch.						
11. Prenatal Testing:						
a. Perform a prenatal work up according to hospital procedure (ABO/Rh type and Ab screen) and accurately interpret the results.						

b. Identify any antibodies and their significance to the fetus.						
12. Perform ABO/Rh type and direct antiglobulin test on cord blood samples and identify potential causes for Hemolytic Disease of the Newborn (Cord Blood testing).						
13. Blood donation procedure:						
a. follow the standard procedure for screening and selection prospective blood donor.						
b. Perform venipuncture for blood donation.						
14. Prepare Blood components (Packed RBCs, platelet concentrate and FFP**) and select appropriate blood product for transfusion.**						
II. Values domain: Blood Bank						
1. Consistently arrive in the Blood bank at the assigned time at the beginning of the shift and after breaks and perform all assigned tasks willingly.						
2. Respect the confidentially of patient test results and report patient test results only to appropriate authorized persons.						
Total number of points from the Competency Checklist:	..... / 100 =.....%					
The student should achieve more than 60% (60 points) to achieve success in the Blood bank section						

ATTENDANCE

Number of days tardy: _____ Dates:
Reason for tardiness:

Make-up Dates:

Number of days absent: _____ Dates:
Reason for Absence(s):

Student reported absence(s)/tardiness to supervisor: ☐ Yes ☐ No
Student followed established procedure for reporting absence: ☐ Yes ☐ No

Evaluator's Signature:..... **Date:**.....

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Assigned teaching staff: ..... **Date:**.....

Assigned teaching staff's Signature: .....