



Royal Medical Services

Professional Training Division

**Logbook for clinical pathology/immunology
Residents**

Explanatory Notes

This is an important document. The logbook is an integral part of basic training and it will provide a record of your experience and your academic and educational activities. It will be part of your assessment as you move through basic training and it will be required for the final year of residency and Board examination.

This logbook is intended to be a record of all procedures you perform or participate in as part of your training.

Training Posts Held

On this page you are required to list, in chronological order, the posts which you have held during residency program at the completion of each post, the trainer or consultant to whom you have been attached must sign to indicate that you have satisfactorily completed the post. When you apply to sit the final assessment, the trainer or consultant with whom you are attached will verify that the log book is complete and authenticated.

You must record the fact that you have sat for and succeeded the basic board examination. A copy of the Jordan Medical Council Primary board certificate should be included with your logbook. On this sheet, records of attendance at other training courses, meetings, and lectures should be recorded. It is not intended that you record educational activities within the unit to which you are attached. Publications and other personal contributions should be included as well as any involvement in research projects.

The logbook is divided into numbered segments, corresponding to the training posts held. Details of your record of practical procedures should be completed for each of these posts. There is a consolidation page to summarize the record of procedures performed.

Personal details:

Full Name in Arabic:

Full name in English:

National number:

Start date of your residency program:

Your signature: _____

Head of the Department: _____

Signature & Stamp: _____ Date: _____

Training Posts Held

Post Number	Division	Residency Year	Start Date	Finish Date	Consultant	Consultant signature
1 st						
2 nd						
3 rd						
4 th						
5 th						
6 th						
7 th						
8 th						
9 th						
10 th						
11 th						
12 th						
13 th						
14 th						
15 th						
16 th						
17 th						
18 th						
19 th						
20 th						

Clinical Immunology residents

First year

Duration of training: 3 months

Date	
One month	1- General overview of all lab tests in the immunology laboratory. 2-Performing routine tests and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins) 3- interpretation of routine test and latex agglutination tests
One month	1- To learn how to setup, evaluate and interpret clinical immunology procedures 2- Observe serology tests with attention to methodology principles, QC, safety, troubleshooting problems. 3-Performing ELISA tests and interpretation of results
One month	1-Interpretation of blood bank results including hepatitis HBsAg, HCV Ab, HIV Ab, RPR. 2- Performing and reading indirect immunofluorescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA) 3-Analysis of SPE and immunofixation results and correlation with clinical picture. 4- Review the abnormal results daily, check for discrepant results.

Second year

Duration: 6 month

Date	
Two months	<p>1-Performing and interpretation of routine test and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins)</p> <p>2- Performing blood bank tests including HBsAg, HCV Ab, HIV Ab, and RPR.</p> <p>3- Interpretation of blood bank results including HBsAg, HCV Ab, HIV Ab, and RPR.</p> <p>4-Review the abnormal results daily, check for discrepant results.</p>
Two months	<p>1-Performing all ELISA tests and interpretation of results</p> <p>2- Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)</p> <p>3- Review the abnormal results daily, check for discrepant results.</p>
Two months	<p>1-Performing all ELISA tests and interpretation of results</p> <p>2-Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet , Viral Biochip)</p> <p>3- Analysis of SPE and immunofixation results and correlation with clinical picture.</p> <p>4- Review the abnormal results daily, check for discrepant results.</p>

Third year

Duration: 9 months

Date	
Three months	<ol style="list-style-type: none">1-Performing and interpretation of all routine and latex agglutination tests.2-Perform all ELISA tests and interpretation of results3-Perform and reading all indirect immunofluorescence slides4- -Performing and interpretation of immunodiffusion and hemagglutination results5-Review the abnormal results daily, check for discrepant results.
Three months	<ol style="list-style-type: none">1- Perform special immunology tests2-Perform and reading ELISA tests, indirect immunofluorescence and analysis of SPE and immunofixation3- Performing and Reading direct immunofluorescence slides of skin and kidney biopsies and correlation with clinical diagnosis.4- Observe ,Perform and reading serological HLA typing and interpretation5- Review the abnormal results daily, check for discrepant results.
Three months	<ol style="list-style-type: none">1- Reading immunofluorescence slides (direct and indirect) and interpretation2- interpretation of ELISA results and special immunology tests3- Observe ,Perform and reading serological HLA typing and interpretation4- Perform and reading of Cytotoxic antibody5- Observe PCR tests for FMF, CF, HLA-DR, HLA- ABC, HepatitisB and Hepatitis C6- Review the abnormal results daily, check for discrepant results.

Fourth year

Duration: 12 month

Date	
1 month	<p>1-Performing and interpretation of routine test and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins)</p> <p>2-Reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1)</p> <p>3-Performing serological HLA typing and interpretation.</p> <p>4- Review the abnormal results daily, check for discrepant results.</p>
2 month	<p>1-Performing all ELISA tests and interpretation of results</p> <p>2-Performing serological HLA typing and interpretation, Cytotoxic antibodies, HLA B5 and HLA B27</p> <p>3-Reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet , Viral Biochip)</p> <p>4-Review the abnormal results daily, check for discrepant results.</p>
2 month	<p>1-Interpretation of blood bank results including hepatitis HBsAg, HCV Ab, HIV Ab, RPR.</p> <p>2-Reading direct immunoflourescence slides of skin and kidney biopsies and correlation with clinical diagnosis.</p> <p>3-Interpretation of PCR tests of FMF, CF, and HLA-DR and ABC</p> <p>4- Review the abnormal results daily, check for discrepant results.</p>
2 month	<p>1-Analysis of SPE results and immunofixation and correlation with clinical picture.</p> <p>2-Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet , Viral Biochip)</p> <p>3-Prefoming and interpretation of immunodiffusion and hemagglutination results</p> <p>4-Interpretation of PCR tests for HepatitisB and Hepatitis C</p> <p>5-Review the abnormal results daily, check for discrepant results.</p>

2 month	<p>1-Performing serological HLA typing and interpretation for kidney and bone marrow transplant patients</p> <p>2-Performing and interpretation of cytotoxic antibodies tests.</p> <p>3-Performing HLA- B5 and HLA-B27 to assess diagnosis in certain autoimmune diseases.</p> <p>4-Review the abnormal results daily, check for discrepant results.</p>
1 month	<p>1-Interpretation of PCR tests of FMF, CF, HLA-DR, HepatitisB and Hepatitis C</p> <p>2- Performing all ELISA tests and interpretation of results</p> <p>3- Perform and interpretation of special immunology test</p> <p>4-Review the abnormal results daily, check for discrepant results.</p>
2 month	<p>1-Reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet , Viral Biochip)</p> <p>2-Reading direct immunoflourescence slides of skin and kidney biopsies and correlation with clinical diagnosis.</p> <p>3-Interpretation of immunodiffusion and hemagglutination results.</p> <p>4-Analysis of SPE and immunofixation results and correlation with clinical picture.</p> <p>5-Review the abnormal results daily, check for discrepant results.</p>

Immunology resident program in others clinical pathology departments: clinical chemistry, hematology, microbiology and blood bank.

First year

Duration of training: 3 months in each division

Hematology

Date	
At start of period	1- General overview of all lab tests in the hematology laboratory.
Two months	2-Performing routine tests like automated CBC and differential with ESR
Two weeks	3- Performing general coagulation tests
Two weeks	4- Performing general blood bank tests like blood grouping and coomb's test

Clinical chemistry

1- Reception and specimen separation

- Identify all types of tests and the nature of the sample required for each test
- Identify all kinds of tubes and components and what tests can work for each type
- Identify all kinds of specimen separation and distribution of samples on different Sections
- Identify errors associated with the samples (errors pre-analysis) and ways to Dispose of the samples violation.

2- Division of Special tests

- Identify all the chemical methods of analysis and its applications and advantages of each method
- Identifying the special tests and methods of work
- Identify the available devices and the principle of its work
- Follow-up errors that may occur in the patient samples or their results
- The study of diseases that require these tests.
- Supervising the test results.

3- Automated tests Division

- Identify the available devices and ways of working and calibrated
- Identify the different working methods of the tests
- Identify errors that may occur for different samples and methods of solution.
- Recognize the results of various medical tests and their suitability for the diagnosis of patients.

4- Division of hormonal tests

- Identify the available devices and ways of working and calibrated
- Identify ways the work of the various tests and errors that may get the Samples and methods of solution.
- Identify the tumor markers and drugs and appropriateness of the results With diagnosis.

5- Division of genetic tests

- Identify the available devices and ways of working and calibrated.
- Identify errors that may get the samples and methods of solution.

Microbiology

Basic Bacteriology Culture Media ,Sterilization and Disinfection-(The Autoclave) Handling of specimens, Microscopy, Bacterial Morphology (Gram,ZN and Albert staining), Cultivation of Bacteria (The growth Curve),Bacterial Identification Methods, Antibiotic Sensitivity Testing.

Identification of microorganisms:

- 1-Select appropriate media and methods for identification
- 2-Intrepret results
- 3- Distinguish between normal flora and pathogens
- 4- Perform susceptibility tests and interpret results

Second year

Duration of training: 2 months in each division

Hematology

Date	
Two weeks	1- Performing routine tests like automated CBC and differential with ESR
Two weeks	2- Reading and interpretation of peripheral blood smears for cases of anemia and reactive disorders of both granulocytes and platelets
Two weeks	3- Performing and interpretation of general coagulation tests.
Two weeks	4-Performing and interpretation of general blood bank tests like blood grouping and coomb's test

Clinical chemistry

1- Automated tests division

- Study of the working methods of automated analysis equipment, review and work on these devices.
- Study of the working methods of the laboratory tests.
- Study results of the tests and work to confirm it.

2- Special tests division

- study devices used in manual analysis and principles of work and work on it.
- Study the required tests and their suitability for the diagnosis of patients.
- Study tests for organ transplant patients and their applications (cyclosporine, prograf, rapamune, methotrexate)

3- Division of hormonal tests

- Study of the working methods of automated analysis equipment and reviewed and work on these devices.
- Interpretation results of hormonal tests and confirmation.

- 4- Division of genetic chemistry tests
 - Identify how to work on these devices.
 - Identify the different ways to prepare the tests.

Microbiology

Basic Bacteriology Culture Media ,Sterilization and Disinfection-(The Autoclave) Handling of specimens, Microscopy, Bacterial Morphology (Gram,ZN and Albert staining), Cultivation of Bacteria (The growth Curve),Bacterial Identification Methods, Antibiotic Sensitivity Testing.

Identification of microorganisms:

- 1-Select appropriate media and methods for identification
- 2-Intrepret results
- 3- Distinguish between normal flora and pathogens
- 4- Perform susceptibility tests and interpret results

Third year

Duration of training: 1 month in each division

Hematology

Date	
One week	1- Performing routine tests like automatedl CBC and differential with ESR with reading and interpretation of peripheral blood smears for cases of anemia and reactive disorders of both granulocytes and platelets and common leukemias
One week	2- Observe special tests done in the department including hemoglobin electrophoresis and flow cytometry with attention to methodology principles , QC, safety, trouble shooting problems
One week	3- Performing and interpretation of general coagulation tests.
One week	4- Performing and interpretation of general blood bank tests like blood grouping and coomb’s tests.

Clinical chemistry

1- Reading and interpretation of results: automated general test, special tests, hormonal tests, genetic chemistry test.

2- Confirmation of the results

Microbiology

ROTATION	DURATION
Reading and processing of culture and antibiotic susceptibility	
Blood and CSF culture	1 week
Urine ,genitourinary and gastrointestinal specimens	1 week
Wound ,respiratory specimens, mycology	1 week
Isolation and identification of mycobacteria	1 week

Immunology department

Routine tests

Year of residency	RF (NUMBER)		CRP (NUMBER)		ASOT (NUMBER)		Brucella(Rose Bengal) (NUMBER)	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Brucella (Wright)- (N)		Bence-Jones protein- (N)		Monospot test		Early pregnancy test	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES:-----

IMMUNOGLOBULIN CLASSES AND COMPLEMENT

Year of residency	IgA		IgM		IgG		IgD	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	IgE		C 3		C4		CH 100 complement	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	CH 50 complement		C1 esterase inhibitor		C1q inhibitor level			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

Year of residency	Ecchinococcus Ab		Q Fever IgG, IgM		Toxoplasma IgG, IgM		Trepanoma pallidium (TPHA)	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Mosaic biochip CNS		Mosaic biochip respiratory		Mosaic biochip G.I		Mosaic biochip lymphadenitis	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Bartonella Hensellae IgG		Schistosomiasis					
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----.

Year of residency	Anti insulin Ab		Anti GAD					
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

LIVER AUTOIMMUNITY RELATED TESTS

Year of residency	ASMA		AMA		LKM1		SLA	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

OTHER SPECIAL TESTS

Year of residency	Anti platelet Ab		α 1 antitrypsin		ACE		Anti-leptin Ab	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Anti-sperm Ab IgA, M,G		Anti—tetanus Ab		Anti- β 2 GPI IgM, IgG		Goblet cell Ab	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Anti- GBM		Neonatal screening TSH		Neonatal screening G6PD			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----
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Microbiology department rotation

Stain techniques :

Year of residency	Wet mount preparation		(Gram stain)		Methylene blue stain		Ziehl–Neelsen stain	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Media preparation:

Year of residency	Blood medium prepared	Chocolate medium prepared	MacConkey media prepared	Sabouraud medium prepared
1 st year				
2d year				
3d year				
4 th year				

NOTES: -----

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Urine culture :

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

Stool culture :

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

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Cerebrospinal fluid culture:

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

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Blood culture:

Year of residency	specimen processing performed	Wet mount preparation seen	Negative cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
					identification	sensitivity
1 st year						
2d year						
3d year						
4 th year						

NOTES: -----

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Swab culture:

Year of residency	Throat swab		Nasal swab		Ear swab		Wound swab	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Year of residency	Axillary's swab		High vaginal swab		Eye swab		Miscellaneous swabs	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Effusions culture:

Year of residency	Ascitic fluid		Pericardial fluid		Peritoneal fluid		Pleural fluid	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Synovial fluid		Pericardial fluid		Peritoneal fluid		Pleural fluid	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Pus culture:

Year of residency	Urethral discharge				Brain abscess			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Liver abscess				Miscellaneous abscess			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Lower respiratory specimens:

Year of residency	Sputum specimens				Brochoalveolar lavage specimens			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Mycobacterium :

Year of residency	Sample processing	z-n stain for screening		Auramine stain		Positive cultures	
		prepared	positive	Prepared	positive	z-n stain	reporting
1 st year							
2d year							
3d year							
4 th year							

NOTES: -----

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Mycology culture:

Year of residency	Specimens processed		Wet mount preparation		reporting	
	Perform	Interpret	Perform	Interpret	identify	sensitivity
1 st year						
2d year						
3d year						
4 th year						

NOTES: -----

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Parasitology:

Year of residency	Specimens processed		Normal saline preparation		Iodine preparation		Reporting
	Stool	genital	Perform	Interpret	Perform	Interpret	
1 st year							
2d year							
3d year							
4 th year							

NOTES: -----

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Commercial systems:

Year of residency	BACTEC		VITEK	
	process	interpret	Process	Interpret
1 st year				
2d year				
3d year				
4 th year				

NOTES: -----

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Serology tests:

Year of residency	<i>Salmonella typing</i>		<i>Shigella</i>		<i>Rotazyme</i>		<i>Streptococcus grouping</i>	
	process	interpret	Process	Interpret	Process	Interpret	Process	interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Virology :

Year of residency	<i>Cytomegalovirus</i> <i>In urine</i>		<i>Cytomegalovirus</i> <i>In blood</i>		<i>Epstein-Barr Virus</i> In blood		<i>Herpes simplex virus</i> 1	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

Other tests :

Year of residency	<i>Catalase test</i>		<i>Coagulase test</i>		<i>Oxidase test</i>	
	process	interpret	Process	Perform	Perform	Interpret
1 st year						
2d year						
3d year						
4 th year						

Clinical chemistry Rotation

Practical skills year of residency	centrifugation & Specimen separation	Specimen collection
First year (number)		
Second year (number)		
Third year (number)		
Fourth year (number)		

Notes -----

Kidney function panel

Test	Na	K	Creatinine	Urea
year of residency				
First year (number)				
Second year (number)				
Third year (number)				
Fourth year(number)				

Notes -----

Lipid profile panel

Test	Triglycerides	Cholesterol	HDL	LDL
year of residency				
First year (number)				
Second year (number)				
Third year (number)				
Fourth year(number)				

Notes -----

Test year of residency	Insulin	Cortisol	GH	ACTH	LH	FSH	Prolactin	B-HCG
First year (number)								
Second year (number)								
Third year (number)								
Fourth year (number)								

Notes -----

Test year of residency	METANEPHRINES	METHYLMALONIC ACID	Norepinephrine	Osmolality	Phosphate
First year (number)					
Second year (number)					
Third year (number)					
Fourth year(number)					

Notes -----

Test year of residency	Stone Analysis	Uroporphyrins	Valproic Acid	VMA Urine 24 Hrs	Acetone	Acid Phosphatase	Amino Acids
First year (number)							
Second year (number)							
Third year (number)							
Fourth year(number)							

Notes -----

Test year of residency	Cyclosporine	Digoxin	Gentamicin	Heparin	Methotrexate	OPIATES
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

Notes -----

Vitamins

Test year of residency	Vitamin B 1	Vitamin B 6	Vitamin B12	Vitamin B2	Vitamin D, 1,25 Dihydroxy	Vitamin D3
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

Supervisor name and signature

First year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Second year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Third year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Fourth year: Immunology department: -----

Program director name and signature

First year: -----

Second year: -----

Third year: -----

Fourth year: -----

Chief of department name and signature

First year: -----

Second year: -----

Third year: -----

Fourth year: -----