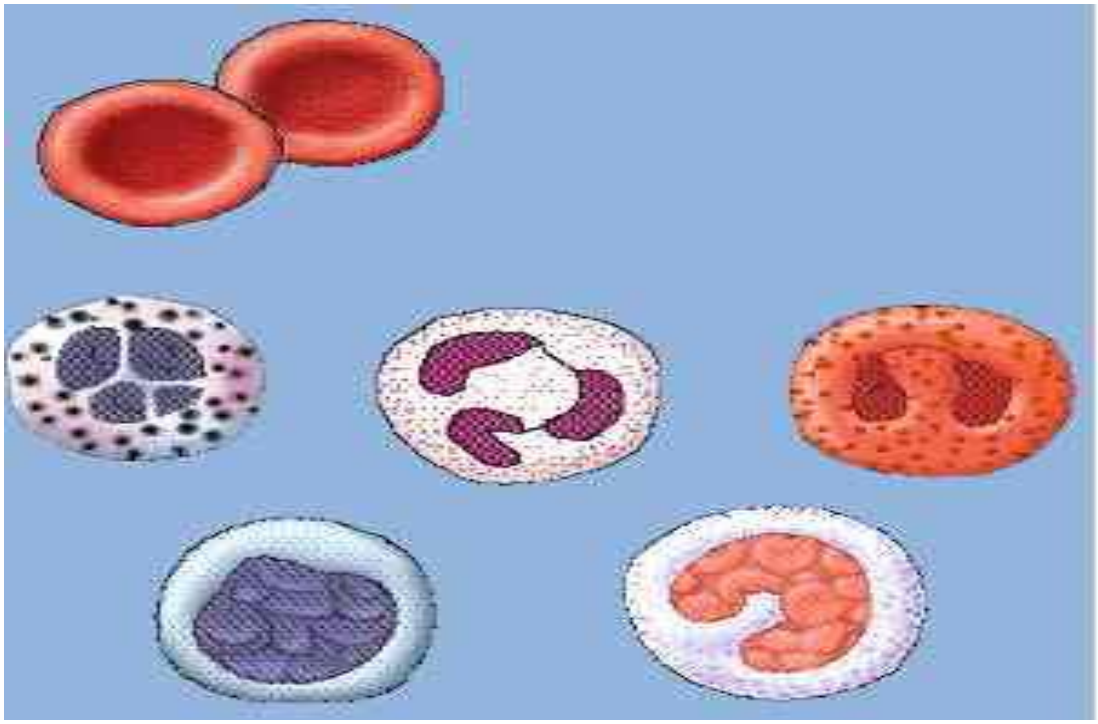
MD Degree of clinical haematology Log Book



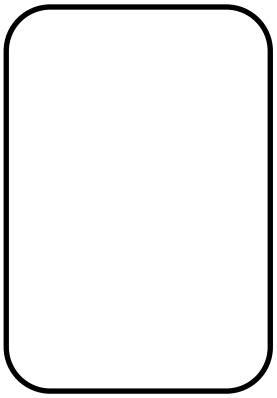
" كراســـــة الأداء و الأنشـــــطة "

دكتوراه في أمراض الدم الإكلينيكيه

2016-2017

Contents

Personal photo



Name…….
Date of birth……..
Address……..
Place of work……
Telephones………**Mobile phone(s)**……..
E mail……

Name of hospital	Period of work	**Hospital director signature**

Academic Information

MBBCh……/……/…… University……..Grade ….……
MSc… ……/……/…… University……..Grade ….……
Grade of Internal Medicine on graduation ……..
Others……/……/…… ……..University
……/……/…… ……..University

Part I

(During year 1)

Course 1 **Medical statistics (FAC309A)**

Course 2 **Research methodology (FAC309B)**

Course 3:

Medicolegal Aspects & Ethics in Medical Practice and Scientific Research (FAC310C)

Course 4:

Pathology of blood diseases & Advanced microbiology and immunology

Unit 1: Pathology of blood diseases

Unit 2: Advanced microbiology and immunology

Course 5: **Genetics and advanced molecular biology**

Course 6: **Basics of therapy of malignant blood diseases**

Unit 1: Radiotherapy

Unit 2 : Chemotherapy

Medical statistics & Research methodology

Medical statistics

Requirements

- **Credit points: 1 credit point**
- **Minimal rate of attendance 80%**

Name of the course	Credit points	Responsible department	Attendance	Practical	Percentage of Achieved points
Medical statistics	1 credit point	Public Health & Community Medicine			100%
	0.1		Introduction 1 hour	SPSS Introduction 2H	10%
	0.1		Tables and graphics 1 Hour	Data entry and cleaning of data 2H	10%
	0.1		Sampling 1 Hour	Transforming of variables 2H	10%
	0.1		Methodology of data collection 1 Hour	Descriptive statistics 2 H	10%
	0.1		Type of variables 1 Hour	Graphic presentation 2 H	10%
	0.1		Proportion test Chi-square test 1 Hour	Chi square and interpretation of results 2 H	10%
	0.1		Student T test Paired T test 1 Hour	Student, Paired and ANOVA tests 2H	10%
	0.1		ANOVA test 1 Hour	Correlation Regression 2 Hour	10%
	0.1		Non parametric tests 1 Hour	Multiple and logistic Regression 2 H	10%
	0.1		Discrimination analysis factor analysis 1 Hour	Non parametric tests 2 H	10%
			Revision 1 H	Revision 2H	
Student signature			Principle coordinator signature		Head of the department signature

Medical Statistics

Lectures and tutorials

Date	Attendance	Topic	Signature

Research Methodology

Requirements

- Credit points: 1 credit point
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Research Methodology	1 credit point	Public Health & Community Medicine		100%
	0.15		4 hours Introduction & proposal writing	15%
	0.15		4 hours Epidemiological study designs	15%
	0.15		4 hours Screening & theoretical background	15%
	0.24		6 hours Screening practical	24%
	0.15		4 hours Sample size calculation	15%
	0.08		2 hours Research bias	8%
	0.08		2 hours Ethics in research	8%
	-		2 hours Revision	-
Student signature			Principle coordinator signature	Head of the department signature

Research Methodology

Lectures and tutorials

Date	Attendance	Topic	Signature

Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology (1st part).

Requirements

- **Credit points: 1 credit point**
- **Minimal rate of attendance 80%**

Name of the course	Credit points	Responsible department	Attendance	
Medicolegal Aspects and Ethics in Medical Practice and Scientific Research	1 credit point	Forensic Medicine and Clinical Toxicology	10 hours	100%
	0.2		2 hours Suspicious death. Death and death certificate.	20%
	0.2		2 hours Supportive measures	20%
	0.2		2 hours Toxicological reports	20%
	0.2		2 hours Ethics in research.	20%
	0.2		2 hours Medical ethics.	20%
Student signature			Principle coordinator signature	Head of the department signature

Medico-legal Aspects and Ethics in Medical Practice and Scientific Research Course Lectures

Date	Attendance	Topic	Signature

Course 4

Pathology of blood diseases &Advanced microbiology and immunology

Unit 1: Pathology of blood diseases

(20 written and 30 oral)

Unit 2: Advanced microbiology and immunology

50 written and 50 0ral

Unit 1: Pathology of blood diseases

Requirements: *- 1 credit point for lectures.*

- Minimal rate of attendance 80% of lectures

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Pathology of blood diseases	Total 1 CP	Clinical haematology & pathology departments	Total 10 hours attendance	100%
	0.25 CP		2.5 hours -Bone marrow diseases & interpret BM trephine biopsy.	25%
	0.25 CP		2.5 hours -Diagnosis of malignant haematological disorders	25%
	0.25 CP		2.5 hours -Lymphomas (Hodgkins' Disease and NHL) -Granulomas including TB lymphadenopathy	25%
	0.25 CP		2.5 hours -Aplastic Anaemia and myelodysplastic syndromes	25%
Student signature			Principle coordinator signature	Head of the department signature

Pathology of blood diseases Lecture

Date	Attendance	Topic	Signature

Unit 2: Advanced microbiology and immunology

Requirements

- 2 credit points for lectures.

- Minimal rate of attendance 80% of lectures.

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Advanced microbiology and immunology	2 CP	Clinical haematology & Medical Microbiology and immunology	20 hours attendance or 10 hours active participation	100%
	1CP		10 hours attendance or 5 hours active participation -Infections in immune deficient patients -General bacteriology related to haematological diseases & Tuberculosis -General virology, Hepatitis viruses &Viruses inducing haematological diseases (HIV, CMV, EBV, Parvo v..) -Common systemic fungal infections	50%
	1CP	Clinical haematology & Medical Microbiology and immunology	10 hours attendance or 5 hours active participation -Immune reactions and autoimmunity -immune deficiency diseases -HLA typing, transplant rejection & graft versus host disease	50%
Student signature			Principle coordinator signature	Head of the department signature

Advanced microbiology and immunology Lecture

Date	Attendance	Topic	Signature

Course 5

Genetics and advanced molecular biology

(2credit points) : Minimal rate of attendance 80% of lectures
(60 written - 40 oral)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Genetics and advanced molecular biology	**2 CP**	**Clinical haematology & clinical pathology departments of South Egypt Cancer Institute**	**20 hours attendance or 10 hours active participation**	**100%**
	0.2 CP		**The genetics of haematopiotic malignancy**	**10%**
	0.2 CP		**Genetic abnormalities associated with haematopiotic malignancy**	**10%**
	0.2 CP		**Consequences of acquired genetic abnormalities.**	**10%**
	0.2 CP		**Diagnostic methods used to study malignant cells**	**10%**
	0.2 CP		**Value of genetic markers in management of haematological malignancy**	**10%**
	0.5 CP		**-Genetic counseling Gene therapy in haematology**	**25%**
	0.5 CP		**Role of stem cell therapy of genetic diseases Molecular basis of inherited hematological disorders**	**25%**
Student signature			**Principle coordinator signature**	**Head of the department signature**

Genetics and advanced molecular biology Lecture

Date	Attendance	Topic	Signature

Course 6

Basics of therapy of malignant blood diseases(Radiotherapy and chemotherapy)

(2credit points) 60 written - 40 oral

Unit 1 Radiotherapy

1 credit point : Minimal rate of attendance 80%
(30 written **-20** oral)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Basis of therapy of malignant blood diseases (Radiotherapy)	**Total 1 CP**	**Clinical Oncology department**	**10 hours attendance or 5 hours active participation**	**100%**
	0.5		**Attendance of 5 hours** **-Role of radiotherapy in Hodgkin lymphoma** **-Role of radiotherapy in non Hodgkin lymphoma**	**50%**
	0.5		**Attendance of 5 hours** **-Role of radiotherapy in plasma cell disorders** **-Role of radiotherapy in mycosis fungoides**	**50%**
Student signature			**Principle coordinator signature**	**Head of the department signature**

Radiotherapy lectures

Date	Attendance	Topic	Signature

Course 6 Unit 2
(Chemotherapy)

1 credit point: Minimal rate of attendance 80%
(30 written **-20** oral)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Basis of therapy of malignant blood diseases (chemotherapy)	**Total 1 CP**	**Clinical haematology department And Medical pharmacology**	**10 hours attendance or 5hours active participation**	**100%**
	0.5		1-Chemotheraputic agents used in treatment of haematological malignancies Alkylating agents Cytotoxic Antibiotics Antimetabolites Pyrimidine antagonists Plant derivatives and miscellaneous	**50%**
	0.5.		2-Biological response modifying agents in treatment of haematological malignancies Alpha interferon, tyrosine-kinase inhibitors and all trans retinoic acid Monoclonal antibodies	**50%**
Student signature			**Principle coordinator signature**	**Head of the department signature**

Chemotherapy lectures

Date	Attendance	Topic	Signature

Year 1
(Training on specialized course 23 CP)

Record of 10 % of required Interpretation of investigation log or procedure log will be during year 1

(page 90-108)

(23 credit point for training in internal medicine on Diseases of internal medicine in ***relation to blood diseases and in clinical hematology unit***

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in **internal medicine and** Clinical hematology unit	23	Internal medicine department and Clinical hematology unit	Year 1	100%
	8		➢ Practice with clinical cases for at least 2 month in the internal medicine department and clinical hematology unit including interpretation of their related laboratory investigation , their different CBC and related laboratory investigation ➢ Supervision on the residents for the admitted cases ➢ Log of cases as mentioned below ➢ Procedures log as mentioned below	34.8%
	4		➢ Night shift (From 2 pm to 8 am) at least 1 night shift /week for 8 week in the department (including supervision on the residents for the newly admitted cases and critical cases)	17.4%
	2		➢ Attendance of one day in the Outpatient clinic (3 hours/day) for at least 16 week.	8.7%
	4		➢ Attendance of one day in the cell separator room/ week for at least 30 week including performance of the needed procedures for the assistant lectures . ➢ Attendance of One month in the cell separator room for the external	17.4%

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
	3		➢ Attendance and or Supervision of at least one month in haematology isolation unit (ICU)	13%
	2		➢ mini clinical exam	8.7%
Student signature			Principle coordinator Signature	Head of the department signature

A-Clinical Rotation, Outpatient clinic, Case log and Night Shift

Clinical Rotation

Duration from -to	Location	Signature of supervisor	

Outpatient clinic

Duration/date from -to	Signature of supervisor		Duration/date from -to	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical rounds log

Date	Attendance	Case presentation	Signature of supervisor

Part II

Course 7 Advanced Haematology

Requirements

- **Credit points:** 24 credit points for didactic (lectures, seminars, tutorial) during year 2 and year 3 (1.5 credit points out of these 24 for formative assessment - twice /year or at least 3 exam during whole period)
- 123 credit points for training (23 credit points during year 1 and 100 credit points during year 2 and year 3) (6 credit points out of these 100 for formative mini clinical exam - twice /year or at least 3 exam during whole period)
- Minimal rate of attendance 80% of didactic and training

This course consist of 8 modules

Module 1 : Diseases of internal medicine in relation to blood diseases

Module 2: *Haemopoiesis OF RBCs and* Disease of RBCS

Module 3 : **Haemopoiesis OF** WBCS **and** Disease of WBCS

Module 4 :Disease of bleeding and coagulation

Module 5 : Malignant blood diseases

Module 6 : Haematological emergences

Module 7: Blood components transfusion, bone marrow and stem cell therapy

Module 8 :Laboratory diagnosis of bone marrow changes

Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	Training *	total
Diseases of internal medicine in relation to blood diseases	10%	1, 2, 3	2.4	12.5	14.9
Haemopoiesis OF RBCs AND Diseases of RBCS-	10%	1, 2, 3	2.4	12.5	14.9
Haemopoiesis OF WBCs and Disease of WBCS	10%	1,2,3	2.4	12.5	14.9
Disease of bleeding and coagulation	15%	1,2,3	3.6	18	21.6
Haematologic malignancies	20%	1,2,3	4.8	25	29.8
Haematological emergences	10%		2.4	12.5	14.9
Blood transfusion therapy and stem cell therapy	15%	1,2,3	3.6	18	21.6
Laboratory diagnosis of bone marrow changes	10%	1,2, 3	2.4	12	14.4
Total No. of Units (8 Modules):	100%		24	123	147
N.B 23 POINT OF TRAINING WILL BE DURING YEAR 1*					

Rotation / attendance proof

الأماكن التي تدرب بها

أسم المستشفى التي تدرب بها	توقيع رئيس القسم	توقيع مدير المستشفى

Year 2

11.5 credit point for didactic in advanced hematology unit 1,2,3, (lectures, seminars, tutorial) **including their formative MCQ assessment**

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Advanced Haematology	11.5	Clinical hematology unit	Year 2	100% of the didactics
	6.5		Topics and attendance 65 hour One lecture /week (Lectures Schedule as described below	56.5%
	3.25		Seminars 50% ON Diseases of internal medicine in relation to blood diseases 2 hours- once / week for at least 6 month ➢ Attendance of at least -80% of the clinical seminars for Assistant lectures ➢ Attendance of at least 70% of the clinical seminars for the external ➢ Presentation of at least 1 time in the seminar	28.3%
	1		Conference or workshop on Internal medicine ***in relation to blood diseases*** or on clinical hematology	8.7%
	0.75		Formative MCQ assessment	6.5%
Student signature			Principle coordinator Signature	Head of the department Signature

Lectures Schedule in year 2

N.B there are additional topics in the course matrix and will be either presented in the seminar by the candidates or self study by the candidates or presented in the conference

Name of the course	Credit points	Responsible unit	Attendance	Percentage of Achieved points
Diseases of internal medicine related to haematology	**Total 2 CP**	**Internal medicine**	**15 hours attendance**	31%
Haemopoiesis RBCs and WBCs	**TOTAL 1.5 CP**	**Clinical hematology unit**	**Year 2**	23%
	0.5		**5 Hours** - **Iron, Vitamin B12 and folic acid metabolism** - **RBC & Hb physiology**	
	0.5		**5 Hours** - **WBC & platelet physiology** - **Haemostasis system and its control**	
	0.5		**5 Hours** - **Cellular and humoral immunity** **-Cytogenetics and molecular basis of oncology**	
Red blood cell disorders	**Total 1.5 CP**	**Clinical hematology unit**		23%
	0.2		**2 Hours** - **Megaloblastic anaemia**	
	0.2		**2- Hours** - **Iron deficiency anaemia and microcytic hypochromic anaemia**	
	0.2		**2 Hours** - **Inherited hemolytic anaemias**	
	0.2		**2 Hours** - **Acquired hemolytic anaemias**	

	0.2		**2 Hours** - **Acquired and constitutional aplastic anaemia**	
	0.3		**3 hours** - **Iron overload disorders**	
	0.2		**2 Hours** **SECONDARY Polycythaemia**	
Benign WBCs disorders	**TOTAL CP 1.5**	**Clinical hematology unit**		**23%**
	0.5		**5 hours** **-Leucopenias and leucocytosis**	
	0.5		**5 hours** **Primary and secondary immunodeficiency diseases**	
	0.5		**5 Hours** **Reactive lymphocyte disorders and lymphadenopathy**	
Student signature			**Principle coordinator Signature**	**Head of the department signature**

Year 2 (40 credit point for training in all units including mini clinical exam)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical hematology unit	40	Clinical hematology unit	Year 2	100%
	12		➢ Practice with clinical cases for at least 3 month in the department including interpretation of their related laboratory investigation , their different CBC and related laboratory investigation ➢ Supervision on the residents for the admitted cases ➢ Log of cases as mentioned below ➢ Procedures log as mentioned below	30%
	9		➢ Night shift (From 2 pm to 8 am) at least 1 night shift /week for 18 week in the department (including supervision on the residents for the newly admitted cases and critical cases)	22.5%
	2		➢ Attendance of one day in the Outpatient clinic (3 hours/day) for at least 16 week.	5%
	4		➢ Attendance of one day in the cell separator room/ week for at least 30 week including performance of the needed procedures for the assistant lectures . ➢ Attendance of One month in the cell separator room for the external	10%

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
	4		➢ Attendance and or Supervision of at least one month in haematology isolation unit (ICU)	10%
	6		➢ Clinical teaching for the students for at least 4 hours per week for 8 month for the assistant lectures. ➢ Attendance of at least another one month in the in haematology isolation (ICU) and or out patient clinic for the external or specialist.	15%
	3		**Mini clinical exam**	7.5%
Student signature			Principle coordinator Signature	Head of the department signature

Year 3
(10 credit point for didactic in Advanced Haematology including their formative MCQ assessment)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Advanced Haematology	10 CP	Clinical hematology unit	Year 3	100%
	6.25		Topics and attendance 60 hour One lecture /week (Lectures Schedule as described below	62.5%
	2CP		Seminars specially on disease of bleeding and coagulation and Haematological Malignacies, Laboratory Hematology 2 hours once / week for at least 6 month ➢ Attendance of at least 80% of the clinical seminars for assistant lectures ➢ Attendance of at least 70% of the clinical seminars for the external ➢ Presentation of at least 1 time in the seminar	20%
	1		Conference or workshop	10%
	0.75		➢ Formative MCQ assessment	7.5%
Student signature			Principle coordinator Signature	Head of the department signature

Lectures Schedule in year 3

N.B there are additional topics in the course matrix and will be either presented in the seminar by the candidates or self study by the candidates or presented in the conference

Name of the course	Credit points	Responsible unit	Attendance	Percentage of Achieved points
Haemostatic Disorders & Thrombophilia and haematological emergencies	2.5	Clinical hematology unit	Year 3	40%
	0.5		**5 hours** Hemophilia, von Willebrand's disease and other hereditary	
	0.25		**2.5 hours** Acquired coagulation disorders (DIC & liver dis.)	
	0.25		**2.5 hours** Thrombotic thrombocytopenic Purpura and HUS	
	0.25		**2.5 hours** Thrombocytopenias – acquired and hereditary	
	0.25		**2.5 hours** Qualitative platelet disorders and Hereditary vW disease	
	0.25		**2.5 hours** Vascular purpuras	
	0.25		**2.5 hours** Hereditary and acquired thrombophilias	
	0.25		**2.5 hours** Anticoagulation and its disorders	
	0.25		**2.5 hours** Thrombocytosis reactive and ET	
Transfusion Medicine and haematological	**1 CP**	Clinical hematology unit		16%

emergency	0.25		**2.5 hours** - Indications and hazards of transfusion Medicine - Transfusion of red blood cells	
	0.25		**2.5 hours** Platelet transfusion and Apharesis	
	0.25		**2.5 hours** Fresh frozen plasma , Old plasma and Cryoprecipitate	
	0.25		**2.5 hours** Autologous blood transfusion and Intravenous immunoglobulin	
Laboratory Hematology for Specialist	0.75	Clinical hematology units		12%
	0.1		**1 hours** Blood Films normal , benign and malignant	
	0.1		**1 hours** Bone Marrow Aspirate Bone Marrow Biopsy	
	0.2		**2 hours** Workup of Hemoglobinopathy Workup of Hemolytic Anemia Sickle Test	
	0.1		**1 hours** Hemoglobin Electrophoresis Manual and Automated Hemostasis Testing	
	0.1		**1 hours** Platelet Function Tests Workup of Hemophilia Workup of Thrombophilia	
	0.15		**1.25 hours** Flowcytometry introduction , basis , clinical application and interpretation in benign and malignant hematological disorders	

Haematological Malignacies and its emergencies	2 CP	Clinical hematology unit		32%
	0.25		**2.5 hours** Acute myeloid leukemias	
	0.25		**2.5 hours** Myelodysplastic Syndrome	
	0.25		**5 hours** Acute lymphoblastic leukaemia	
	0.25		**2.5 hours** Chronic lymphocytic leukaemia	
	0.25		**2.5 hours** <u>Myelopoiferaive disorders:</u> Chronic meyloid leukaemia, Polycythemia Vera, myelofibrosis and ET	
	0.25		**2.5 hours** Hodgkin's disease and Non Hodgkins's lymphoma	
	0.25		**2.5 hours** Multiple Myeloma and Plasma cell disorders	
	0.25		**2.5 hours** Heavy chain disease and Waldenstrom Macroglobulinaemia and Hairy cell leukaemia	

Year 3 (40 credit point for training in all units including mini clinical exam)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical hematology unit	40	Clinical hematology unit	Year 2	100%
	12		➢ Practice with clinical cases for at least 3 month in the department including interpretation of their related laboratory investigation , their different CBC and related laboratory investigation ➢ Supervision on the residents for the admitted cases ➢ Log of cases as mentioned below ➢ Procedures log as mentioned below	30%
	9		➢ Night shift (From 2 pm to 8 am) at least 1 night shift /week for 18 week in the department (including supervision on the residents for the newly admitted cases and critical cases)	22.5%
	2		➢ Attendance of one day in the Outpatient clinic (3 hours/day) for at least 16 week.	5%
	4		➢ Attendance of one day in the cell separator room/ week for at least 30 week including performance of the needed procedures for the assistant lectures . ➢ Attendance of One month in the cell separator room for the external	10%

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
	4		➢ Attendance and or Supervision of at least one month in haematology isolation unit (ICU)	10%
	6		➢ Clinical teaching for the students for at least 4 hours per week for 8 month for the assistant lectures. ➢ Attendance of at least another one month in the in haematology isolation (ICU) and or out patient clinic for the external or specialist.	15%
	3		**Mini clinical exam**	7.5%
Student signature			Principle coordinator Signature	Head of the department signature

Year 4 (First half)
(2.5 credit point for didactic in advanced haematology)

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Stem cell transplantation	2.5	Clinical hematology unit	Year 4	100%
	1.5		Topics and attendance 15 hour One lecture /week (Lectures Schedule as described below	60%
	1		Seminars 2 hours once / week for at least 6 month ➢ Attendance ➢ Active participation in the seminar	40%
Student signature			Principle coordinator Signature	Head of the department signature

Lectures Schedule in year 4 (First half)

Name of the course	Credit points	Responsible unit	Attendance	Percentage of Achieved points
stem cell transplantation	1.5	Clinical hematology unit	Year 4	
	0.5		**5 hours** Peripheral blood stem cell mobilization and harvesting Infusion of stem cell	
	0.5		**5 hours** Autologous bone marrow and blood stem cell transplantation Allogenic bone marrow and blood stem cell transplantation	
	0.5		**5 hours** Blood product support of stem cell transplantation Complications of stem cell transplantation	

Year 4 First half only (20 credit point for training in all units)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical hematology unit	20	Clinical hematology unit	Year 4	100%
	4		➢ Practice with clinical cases for at least 1 month in the department including interpretation of their related laboratory investigation and interpretation of their different CBC and related laboratory investigation ➢ Supervision on the residents for the admitted cases ➢ Log of cases as mentioned below ➢ Procedures log as mentioned below	20%
	4		➢ Night shift (From 2 pm to 8 am) at least 1 night shift /week for 8 week in the department (including supervision on the residents for the newly admitted cases and critical cases) .	20%
	1		➢ Attendance of one day in the Outpatient clinic (3 hours/day) for at least 8 week.	5%
	4		➢ Attendance of one day in the cell separator room/ week for at least 20 week including performance of the needed procedures for the assistant lectures . ➢ Attendance of 4 weeks in the cell separator room for the external	20%

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
	4		➢ Attendance and or Supervision of at least one month in the haematology isolation intermediate care unit (ICU)	20%
	3		➢ Clinical teaching for the students for at least 4 hours per week for 4 month for the assistant lectures. ➢ Attendance of at least another 3 weeks in the out-patient clinic and or haematology isolation unit for the external or specialist.	15%
Student signature			Principle coordinator Signature	Head of the department signature

SPECIALITY	DIAGNOSIS	NO. CASES	LEC. OR SEMINAR
Haemopoiesis RBCs and WBCs	**Iron, Vitamin B12 and folic acid metabolism**	**-**	**1**
	RBC & Hb physiology	**-**	**1**
	WBC & platelet physiology	**-**	**1**
	Haemostasis system and its control	**-**	**1**
	Cellular and humoral immunity	**-**	**1**
	Cytogenetics and molecular basis of oncology	**.**	**1**
	Application of nuclear medicine in haematology	**.**	**1**
Red blood cell disorders	**Megaloblastic anaemia**	**20**	**1**
	Iron deficiency anaemia	**40**	**1**
	Inherited hemolytic anaemias	**40**	**1**
	Acquired hemolytic anaemias	**30**	**1**
	Acquired and constitutional aplastic anaemia	**30**	**1**
	Iron overload disorders	**10**	**2**
	Polycythaemia	**10**	**1**
Benign WBCs disorders	**Leucopenias and leucocytosis**	**20**	**1**
	Primary and secondary immunodeficiency diseases	**10**	**1**
	Reactive lymphocyte disorders and lymphadenopathy	**20**	**1**
	Myelofibrosis	**20**	**1**
Haematological Malignacies	**Acute myeloid leukemias**	**20**	**2**
	Myelodysplastic Syndrome	**30**	**2**
	Acute lymphoblastic leukaemia	**10**	**1**
	Chronic lymphocytic leukaemia	**10**	**1**
	<u>Myelopoiferaive disorders:</u> Chronic meyloid leukaemia, Polycythemia Vera, myelofibrosis and ET	**20**	**2**
	Hodgkin's disease and Non Hodgkins's lymphoma	**30**	**2**
	Multiple Myeloma and Plasma cell disorders	**10**	**1**
	Heavy chain disease and Waldenstrom Macroglobulinaemia	**5**	**1**
	Hairy cell leukaemia	**2**	
Haemostatic Disorders & Thrombophilia	**Hemophilia, von Willebrand's disease and other hereditary coagulation disorders**	**20**	**2**
	Acquired coagulation disorders (DIC & liver dis.)	**20**	**2**
	Thrombotic thrombocytopenic Purpura and HUS	**5**	**1**
	Thrombocytopenias – acquired and hereditary	**30**	**3**
	Qualitative platelet disorders and Hereditary vW disease	**20**	**1**
	Vascular purpuras	**5**	**1**
	Hereditary and acquired thrombophilias	**5**	**1**
	Anticoagulation and its disorders	**10**	**1**
	Thrombocytosis reactive and ET	**5**	**1**
Blood Bank and	**Indications and hazards of transfusion Medicine**	**10**	**1**

transfusion Medicine and	**Transfusion of red blood cells**	**20**	
	Platelet transfusion	**20**	
	Apharesis	**10**	**1**
	Fresh frozen plasma	**20**	
	Old plasma	**10**	
	Cryoprecipitate	**20**	
	Autologous blood transfusion	**5**	1
	Intravenous immunoglobulin	**5**	
Bone Marrow Transplantation	**Bone marrow harvesting**	**10**	
	Stem cell transplant conditioning protocols	**10**	
	Prepheral blood stem cell mobilization and harvesting	**10**	
	Infusion of stem cell	**10**	2
	Autologous bone marrow and blood stem cell transplantation	**10**	
	Allogenic bone marrow and blood stem cell transplantation	**10**	
	Blood product support of stem cell transplantation	**10**	
	Complications of stem cell transplantation	**10**	
Laboratory Hematology for Specialist	**REPORTING OF BLOOD FILMS AND MARROW ASPIRATES**		**1**
	Blood Films normal , benign and malignant	**40**	**3**
	Bone Marrow Aspirate	**20**	**3**
	Bone Marrow Biopsy	**10**	**1**
	HEMOGLOBINOPATHY LABORATORY:		**2**
	Workup of Hemoglobinopathy	**10**	
	Workup of Hemolytic Anemia	**10**	
	Sickledex Test	**10**	
	Hemoglobin Electrophoresis	**10**	
	High Performance Liquid Chromatography	**10**	
	HEMOSTASIS LABORATORY		**2**
	Manual and Automated Hemostasis Testing	**5**	
	Platelet Function Tests	**10**	
	Workup of Hemophilia	**10**	
	Workup of Thrombophilia	**10**	
	RESIDENTS OWN CHECK LIST OF ABNORMAL MORPHOLOGY	**5**	
	Flowcytometry introduction , basis , clinical application and interpretation in benign and malignant hematological disorders.	**20**	**3**

A-Clinical Rotation, Outpatient clinic, Case log and Night Shift

Clinical Rotation

Duration from -to	Location	Signature of supervisor	

Clinical Rotation

Duration/Date from -to	Location	Signature of supervisor	

Outpatient clinic

Duration/date from -to	Signature of supervisor		Duration/date from -to	Signature of supervisor

Outpatient clinic

Date/ Duration from -to	Signature of supervisor		Date/ Duration from -to	Signature of supervisor

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
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B- Carry out
C- Carry out under supervision

Clinical case log

Date	Diagnosis of case	*Level of participation	Location	Signature of supervisor

* Level of participation
A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical rounds log

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Date	Attendance	Case presentation	Signature of supervisor

Rotation and attendance in intensive care units

Date From - to	Unit	Duration	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

2- Clinical Seminars (For all modules)

Requirements: - Attendance of at least 80% of the clinical seminars

- Presentation of at least 2 cases in the seminar
- Presentation of at least 2 subjects in the seminar
- Log of at least 1 evidence-based guidelines.

2-A: Attendance

Date	Attendance	Topic	Signature

2-A: Attendance

Date	Attendance	Topic	Signature

2-A: Attendance

Date	Attendance	Topic	Signature

2-A: Attendance

Date	Attendance	Topic	Signature

2-B: Case or topic presentation

Date	Case	Topic	Signature

3- Post graduate teaching

3-A: lectures

Date	Title of lecture	Signature of Staff Member

3-A: lectures

Date	Title of lecture	Signature of Staff Member

3-A: lectures

Date	Title of lecture	Signature of Staff Member

3-A: lectures

Date	Title of lecture	Signature of Staff Member

3-B: Tutorial

Date	Title of Tutorial	Signature of Staff member

4-Academic activities

Lecture, journal club, conference, workshop

Activity	Your role **	Date	Signature of supervisor

** Your role:-
A- Attendance
B- Organization
C- Presentation

Bone Marrow Transplantation
Allogenic or Autologous BMT

NO	date and name	Which centre For BMT	Comments			signature
			Observe	Share	Do	
1						
2						
3						
4						
5						
6						
7						
8						
9						

Interpretation of investigation log Book

PROCEDURE	NO. CASES	
Chest x ray (Interpret)	50	
ECG (Interpret)	50	
Abdominal U/S (Interpret)	20	
CT scan (chest & Abdomen) (Interpret)	40	
Peripheral Blood smear (Interpret)	150	
Bone Marrow biopsy (Interpret)	100	
Flowcytometry (Interpret)	20	
Plasma protein & Hb electrophoresis	40	
Bacteriological, biochemical, immunological and cytological analysis of body fluids	100	
HLA matching (Interpret)	10	

The trainee should do or share in at least 50% of the number of required cases.

Procedure log Book

PROCEDURE	NO. CASES	
Use of Blood cell separator (different protocols)	20	
Abdominal paracentesis (insertion)	10	
Thoracic paracentesis (insertion)	10	
Peripheral Blood smear (DO)	50	
Bone Marrow aspirate and/or biopsy	20	
Lumbar puncture	10	
Insertion of femoral and/or Hickman Catheter and arterial blood sampling	20	
Dealing with Immune Deficient patients	20	

Record of 10 % of required Interpretation of investigation log or procedure log will be during year 1

Formative assessment MCQ and clinical examination

Exam	Score	Grade*	Date	Signature

*Degree

A- Excellent
B- Very good
C- Good
D- Pass
E- Bad

Interpretation of investigation log Book

Chest X ray

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency
A- Independent Interpretation
B- Interpretation under supervision
C- Observed

Interpretation of investigation log Book

ECG

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency

A- Independent Interpretation

B- Interpretation under supervision

C- Observed

Interpretation of investigation log Book
Abdominal US

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency
A- Independent Interpretation
B- Interpretation under supervision
C- Observed

Interpretation of investigation log Book

CT scan (chest & Abdomen)

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency

A- Independent Interpretation

B- Interpretation under supervision

C- Observed

Interpretation of investigation log Book

Bone Marrow biopsy

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency

A- Independent Interpretation

B- Interpretation under supervision

C- Observed

Interpretation of investigation log Book

Peripheral Blood smear

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency

A- Independent Interpretation

B- Interpretation under supervision

C- Observed

Interpretation of investigation log Book

Bacteriological, biochemical, immunological and cytological analysis of body fluids

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency
A- Independent Interpretation
B- Interpretation under supervision
C- Observed

Interpretation of investigation log Book

Flowcytometry and Plasma protein & Hb electrophoresis

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency
A- Independent Interpretation
B- Interpretation under supervision
C- Observed

Interpretation of investigation log Book

HLA matching

NO.	Level of competency*	Diagnosis of the case	Signature

* Level of competency
A- Independent Interpretation
B- Interpretation under supervision
C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Procedure log Book

Test for the competency in the procedure*

Date	Procedure	Level of competency*	Signature of supervisor

Level of competency *

A- Independent performance

B- Performance under supervision

C- Observed

Postgraduate student's program
Rotation in training assessment

**** Name:***

**** Period of training From: To:***

**** Site:***

****Rotation***

General skills	could not judge (0)	strongly disagree(1)	(2) (3)		(4) (5)		(6)	strongly agree (7)
Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of his field.								
Appraise scientific evidence.								
Continuously improve patient care based on constant self-evaluation and life-long learning.								
Participate in clinical audit and research projects.								

General skills	could not judge (0)	strongly disagree(1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Practice skills of evidence-based Medicine (EBM).								
Educate and evaluate students, residents and other health professionals.								
Design logbooks.								
Design clinical guidelines and standard protocols of management.								
Appraise evidence from scientific studies related to the patients' health problems.								
Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.								
Use information technology to manage information, access on- line medical information; for the important topics.								
Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:- • Present a case. • Write a consultation note. • Inform patients of a diagnosis and therapeutic plan Completing and maintaining comprehensive. • Timely and legible medical records. • Teamwork skills.								

General skills	could not judge (0)	strongly disagree(1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Create and sustain a therapeutic and ethically sound relationship with patients.								
Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member or leader of a health care team or other professional group.								
Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.								
Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.								
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.								
Work effectively in health care delivery settings and systems related to specialty including good administrative and time management.								
Practice cost-effective healthcare and resource allocation that does not compromise quality of care.								

General skills	could not judge (0)	strongly disagree(1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Advocate for quality patient care and assist patients in dealing with system complexities.								
Design, monitor and evaluate specification of under and post graduate courses and programs.								
Act as a chair man for scientific meetings including time management								

Elective courses

Requirements

- Credit points: 3 credit point.
- Minimal rate of attendance 80% of lectures and 80% of training
- The student choose two of these courses

1. **Advanced medical statistics.**
2. **Evidence based medicine.**
3. **Advanced infection control.**
4. **Quality assurance of medical education.**
5. **Quality assurance of clinical practice.**
6. **Hospital management**

Name of the elective course 1: ----------

Requirements

- Credit points: 1.5 credit point.
- Minimal rate of attendance 80% of lectures and 80% of training

Elective Course 1 Lectures

Date	Attendance	Topic	Signature

Elective Course 1 Practical skills

Date	Attendance	Activity	Signature

Name of the elective course 2: ----------

Requirements

- Credit points: 1.5 credit point.
- Minimal rate of attendance 80% of lectures and 80% of training

Elective Course 2 Lectures

Date	Attendance	Topic	Signature

Elective Course 2 Practical skills

Date	Attendance	Activity	Signature

الرسائل العلمية

عنوان الرسالة

عربـــــــــــــــــي :

انجلـــــــــــــــــيزي :

المشرفـــــــــــــون :

1- .....

2- .....

3 .....

4- .....

تاريخ القيـــد لدرجـــة : ..... /

تاريخ التسجيل الموضوع: .....

المتابعة الدوريـــــــــة : .....

التاريخ	ما تم انجازه من برتكول البحث	المتبقي	توقيع المشرفين

Remarks

Signature

Declaration

Essential requirement for completing logbook MD Degree in clinical haematology according to credit point bylaws

Course Structure Mirror	Responsible (Module) Coordinator Name:	Signature	Date
First part			
Course 1 Medical statistics			
Course 2 Research Methodology			
Course 3: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research			
Course 4: Pathology of blood diseases & Advanced microbiology and immunology **Unit 1 Pathology of blood diseases** **Unit 2 Advanced microbiology and immunology**			
Course 5: Genetics and advanced molecular biology			
Course 6: Basics of therapy of malignant blood diseases **Unit 1 Radiotherapy** **Unit 2 Chemotherapy**			
Second part: Course 7 advanced haematology			
-**Module** Diseases of internal medicine in relation to blood diseases			
-**Module Haematopoesis of RBCS AND** Disease of RBCS	**Prof. Dr Youseryia A. Ahmad**		
-**Module Haematopoesis of WBCS AND** Disease of WBCS	**Prof. Dr Howaida Nafady**		
-**Module** Disease of bleeding and coagulation	**Prof. Dr. Esam A.S. Elbeih**		
-**Module** Malignant blood diseases	**Prof. Dr Youseryia A. Ahmad**		
Module Haematological emergences	**Prof. Dr. Esam A.S. Elbeih**		
Module Blood transfusion therapy and stem cell therapy	**Prof. Dr Eman M. Swifi**		
-**Module** Laboratory diagnosis of bone marrow changes	**Prof. Dr. Esam A.S. Elbeih**		
- Elective Course (s) Certificate (s) Dates:			
- MD Degree Thesis Acceptance Date:	/ / 20		
- Fulfillment of required credit points prior to final examination	**Achievement was done**		
M D Degree Principle Coordinator:	**Prof. Dr. Esam A.S. Elbeih**	أ.د/	
Date approved by Department Council:			

يعتمد ،

رئيس القسم

أ.د/