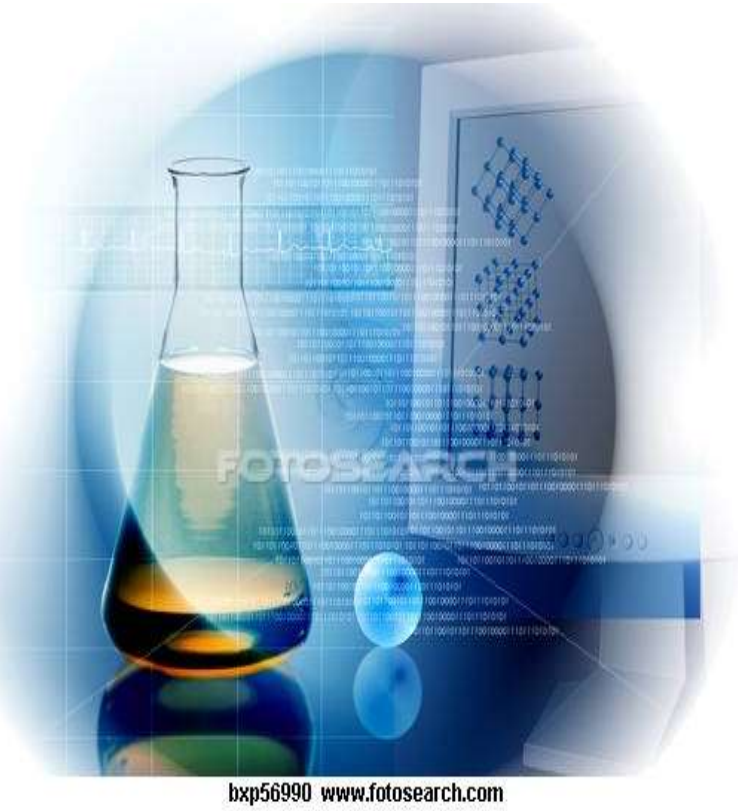
Master Degree (MSc) of Medical Biochemistry Log Book



" كراســـــة الأنشـــــطة "
اللازمة لحصول المتدرب على درجة الماجستير
فى الكيمياء الحيوية الطبية

2022-2023

Contents

Personal Data:

Name…….

Gender …….

Nationality …….

Date of birth……..

Address……

Place of

work……

Telephones………

Mobile phone(s)……..

E mail……

Academic Information:

MBBCh University ……..

……/……/……

Grade ….……

Date of Master degree registration: ……/……/……

Grade of Internal Medicine course on graduation

……..

Others:

…….. University ……..

……/……/……

* Aim of the activities book

To provide one source of evidence for the assessment committee that you attained the desired level of competency required to gain the award.
In this book you will document all clinical/practical, academic, other experiences and skills you attained during your training.

Sections of the book

For each course / rotation

You should fill the following sections:-

1- Clinical/Practical research presentation log

1- You will first find list with all required cases/ or experiments in the concerned module and the minimum number of cases/ or experiments you must get exposed to and level of participation you should achieve for each type of cases/ or experiments.

2- You should record all clinical cases or experiments done in the module and each case/ or experiment should be signed by you trainer.

2- Clinical/Practical case presentation log

Record the cases or experiments related to the module that you have presented in a seminar or other activity.

3- Procedures log

1- You will find a list for required procedure and level of desired performance you should achieve at the end of training.

2- You will find empty tables to write down the procedure, your level of participation and date and signature of supervisor.

4- Rotation / attendance proof

You should have evidence of achievement the required training hours within each module. *For the whole program fill the following sections.*

1- Academic activities

A- Document all academic activities e.g. lecture journal clubs, workshops, conferences, services attended. This documentation should include the level of participation " attendance, preparation, presentation,……"

2- Academic achievements

A- Document all outcomes you achieved in the field of:-
- Audit participation
- Research "clinical trial" participation.
- Evidence- based medicine "generation of guidelines" protocols

3- Formative assessment log

This document all types of formative assessment attended e.g.:-
- Mini clinical examination
- Quieses

PROGRAMME AIMS

1. To prepare highly qualified Biochemists in appropriate Laboratory fields and Biomedical investigations .
2. To introduce candidates to the basics of scientific medical research and its ethics.
3. To enable the candidates to develop basic concepts and principles of human Biochemistry logically and clearly to associate and investigate specific biomarkers.
4. To provide an educational environment that encourages creativity and research both fundamental and applied.
5. To enable students to improve their skills in research and undergraduate teaching.
6. By the end of the program students will be able to perform competently the following researches considered essential for the following topics:

- **Basic Biochemical Techniques**
- **Liver and Kidney Functions &Stone analysis**
- **Investigation of Metabolic error of diseases**
- **Seminar. &. Case report**

Other topics

1. **Metabolism Of Blood Cells (practical and theoretical)**
2. **Bacteriology (Immunology and culture sensitivity)**
3. **Physiology of Hormones**
4. **Histopathology& Immunohistochemistry**
5. **Laboratory ethics**
6. **Sampling**
7. **Pipetting**
8. **Centrifugation**
9. **Metabolism (of carbohydrates, lipid and protein)**
10. **Enzymes, Vitamins , Minerals, Hormones**
11. **Hematology (RBCs &WBCs) practical and theoretical**
12. **Tumor Markers**
13. **Molecular Biology**
14. **Xenobiotics**
15. **Oxygen Free Radicals**
16. **Stress Hormones**
17. **Gene Therapy**
18. **Biochemistry of membrane**

Curriculum Structure:

Program Time Table

Duration of program 3 years maximally 5 years divided into

- Part 1: 12 months

Program-related basic science courses and ILOs+ elective courses
Students are allowed to set the exams of these courses after 12 months from applying to the MSc degree.

- Thesis

  For the MSc thesis;
  MSc thesis subject should be officially registered within 6 months from application to the MSc degree,
  Discussion and acceptance of the thesis should not be set before 12 months from registering the MSc subject;
  It could be discussed and accepted before passing the second part of examination

- Part 2: 18-24 months

Program –related speciality courses and ILOs
Students are not allowed to set the exams of these courses before 3 years from applying to the MSc degree.

N.B. Fulfillment of the requirements in each course as described in the template and registered in the log book is a pre-request for candidates to be assessed and undertake part 1 and part 2 examinations.

Courses of BIOCHEMISTRY

First Part

3 courses

1. Metabolism Of Blood Cells, Microbiology,Immunity&Hematology
2. Physiology of Hormones
3- Histopathology&Immunohistochemistry

Metabolism Of Blood Cells, Microbiology & Immunity and Hematology

Requirements: 4 credit points for didactic, 5 credit points for training

Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Metabolism Of Blood Cells Microbiology& Immunity Hematology	0.5	Microbiology Department & Biochemistry Department	5 hours Microbiology basic science	6.25%
	0.5		5 hours Tissue culture	6.25%
	0.5		5 hours Immunoglobulin's	6.25%
	0.5		5 hours Culture and sensitivity	6.25%
	0.5		5hours Chemistry and metabolism of Blood Cells	6.25%
	0.5		5 hours Metabolism of Blood Cells (practical and theoretical)	6.25%
	0.5		5 hours ○ Hematopoiesis ○ Blood tests ○ Erythropoiesis & Erythropoietin	6.25%
	0. 5		5 hours ○ Iron metabolism ○ Hemoglobin ○ Glycolysis & Pentose phosphate pathway	6.25%
Student signature			Principle coordinator signature	Head of the department signature

Training

Lab training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Microbiology, Immunity &Hematology	2.5	Microbiology, Biochemistry,	Practice in the department including: at least 2 days/week for 8 weeks	50%
	2.5		Practice in the research laboratory including: for at least 1day/week for 15 weeks	50%
Student signature			Principle coordinator Signature	Head of the department signature

Physiology of Hormones

Requirements

- **Credit points: 2 credit point for didactic, 2.5 points for training**
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Biochemistry of Hormones	0.5	Biochemistry department	5 hours 1. List the classification of hormones 2. Explain the mechanism of hormone action	6.25%
	0.75		7.5 hours 1. Describe Hormones as signals 2. Explain Interactions with receptors 3. Mentions the Physiology of hormones 4. Mention the Chemical classes of hormones	9.37%
	0.75		7.5 hours Diseases of hormonal deficiency and cases reports	9.37 %
Student signature			Principle coordinator signature	Head of the department signature

Training

Lab training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Biochemistry of Hormones	1.5	, Biochemistry, Department	Practice in the department including: at least 1 day/week for 8 weeks	60%
	1		Practice in the research laboratory including: for at least 1day/week for 6 weeks	40%
Student signature			Principle coordinator Signature	Head of the department signature

Histopathology and immunohistochemistry

Requirements

- **Credit points: 2credit points for didactic and 2.5 for training**
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Histopathology	0.75	pathology	7.5 hours Principles of Immunohistopathology	9.37 %
	0. 5		5 hours Sample preparation	6.25%
	0.75		7.5 hours Sample labeling ○ Antibody types ○ IHC reporters ○ Target antigen detection methods ○ Counterstains	9.37%
Student signature			Principle coordinator Signature	Head of the department signature

Training

Lab training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Histopathology And immunohistochemistry	2	, Pathology Department	Practice in the immunohistochemistry lab for at least 1 days/week for 12 weeks	80%
	0.5		Practice in the research laboratory including: for at least 1day/week for 3 weeks	20%
Student signature			Principle coordinator Signature	Head of the department signature

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)
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities And use logbooks).								
Appraises evidence from scientific studies.								
Conduct epidemiological Studies and surveys.								
Perform data management including data entry and analysis and Using information technology to manage information, access on-line medical information; and support their own education.								

General skills	could not judge (0)	strongly disagree (1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Facilitate learning of students, lab technical staff and other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients, their families, lab technical staff and other health professionals.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								
Provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member of a 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, business practices.								

General skills	could not judge (0)	strongly disagree (1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.								
Work effectively in relevant academic and health care delivery settings and systems including good administrative and time management.								
Adopt cost-effective practice and resource allocation that does not compromise quality of services.								
Assist patients in dealing with system complexities.								

Course 4:
Biochemistry

Training on Basic biochemistry in year 1
20 points

Lab training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Training at Biochemistry Laboratories	4	biochemistry	Attendance of postgraduate training lab at biochemistry department for at least 2 days /week for 12 weeks including The use of departmental protocols for the handling; of specimens including identification, documentation, and measures to prevent specimen mix-ups	20%
	6	Biochemistry	Student teaching Attendance of at least 6 (2 hours) sections/ week for 15 weeks	30%
	5		Attendance of molecular lab for at least one day/week for 30weeks including 100 specimens handling , DNA, RNA extraction and analysis	25%
	5		Attendance in ELISA lab for at least one day/week for 30 weeks including 96 specimens manipulation , processing, reading and result interpretation	25%
Student signature			Principle coordinator Signature	Head of the department signature

1. Practical Research log book

No	Experiment	Number of each experiments
1	Preparation of different Chemical solutions.	
2	Measurements of metabolic error of Carbohydrates	

Requirements

- **Basic Biochemical Techniques**
- **Liver and Kidney Functions &Stone analysis**
- **Investigation of Metabolic error of diseases**
- **Seminar. &. Case report**

Other topics

Laboratory ethics

Sampling

Pipetting

Centrifugation

2- Practical experiments presentation log book

Record the cases related to the module that you have presented in a seminar or other activity.

A- Tests examination log book

NO.	Name of the test	Level of participation *	Location	Signature of supervisor

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

3- Procedures log book

A- Tests examination log book

NO.	Name of the test	Level of participation*	Location	Signature of supervisor

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

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

Requirements

I. Attendance of at least 60% of practical sections.

II. Doing at least 4 experiments in each done independent

4- Rotation / attendance proof

Duration from –to	Location	Signature of supervisor	Duration from -to	Location	Signature of supervisor

توقيع رئيس القسم	Department name

Post graduate teaching
Lectures

Date	Title of lecture	Signature of Staff member

Year Two and Three

Year 2

Requirements:

Credit points:

- **12** credit points for didactic (lectures, seminars, tutorial) and
- 48 credit points for training.

- Minimal rate of attendance 80% of training and didactic

INCLUDED

Unit 1: Basic biochemistry

1. **Chemistry of Carbohydrate, Lipid and Protein**
2. **Carbohydrate metabolism**
3. **Lipid metabolism**
4. **Protein metabolism**
5. **Hormone metabolism**
6. **Hemoglobin metabolism**
7. **Biochemistry of Vitamins**
8. **Biochemistry of Enzymes**
9. **Mineral Metabolism**
10. **Xenobiotics metabolism**
11. **Immunochemistry**

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 1: Basic biochemistry	2	Biochemistry	20 hours chemistry of carbohydrates, lipids and proteins	16.7%
	2		20 hours Carbohydrate Metabolism	16.7%
	0.5		5hours Hemoglobin metabolism	2.1%
	1		10 hours Minerals Metabolism	8.3%
	1		10 hours Lipid Metabolism	8.3%
	1		10 hours Protein Metabolism	8.3%
	1		10 hours Vitamins biochemistry	8.3%
	2		12 hours Enzymes biochemistry	16.7%
	0.5		5 hours hormone Metabolism	4.1%
	0. 5		5 hours xenobiotic metabolism	4.1%
	0.25		2.5 hours immunochemistry and Immunoglobulin’s	2%
	0.25		Formative Assessment	2%
Student signature			**Principle coordinator Signature**	**Head of the department signature**

Training: 48 points

Lab training	Credit points	Responsible department	Attendance	Percent-age of Achieved points
Training in Biochemistry Laboratory	10	Biochemistry Department	Training at biochemistry lab on the laboratory aspects of preparations of chemicals (minimal of 100 tests) for 2 days/week for 30 weeks.	20.8 %
	10		Attendance of biochemistry lab for at least 2 days /week for 30 weeks for understanding different biochemical units and how to exchange between units, training on sampling, different anticoagulants, handling of samples and documentation.	20.8 %
	10		Attendance of research lab for at least 2 days/week for 30 weeks to know the different lab instruments and enable the student to be familiar with these instruments and their clinical implications. And to make student oriented with the physico-chemical basis of these instruments and the related clinical problems.	20.8 %
	10		Attendance of research lab for at least 2 days /week for 30 weeks to know and practice basic biochemical techniques such as pipetting, pH adjustment, titration,	20.8 %

			colorimetry and identification tests.	
	8		Training on student teaching Attendance of at least 5 sections (2 hours per section) / week for 24 weeks with senior colleagues	16.6 %
Student signature			Principle coordinator Signature	Head of the department Signature

Year 3

Requirements:
Credit points:

- **12** credit points for didactic (lectures, seminars, tutorial) and
- 48 credit points for training.

- Minimal rate of attendance 80% of training and didactic

INCLUDED

Unit1: Basic biochemistry

1. **Biochemistry of Obesity and starvation**
2. **Biochemistry of Fatty Liver**
3. **Biochemistry of body fluids**
4. **Biochemistry of Cell Membranes**
5. **Tissue metabolism (RBCs, Muscles, Collagen, etc**
6. **Oxidant Stress, Antioxidants and Radiation Biology**
7. **Purines and Pyrimidine metabolism**

Unit 2: Molecular Biology & Tumor Markers

1. **Tumor Markers**
2. **Flow of genetic information (replication, transcription, translation)**
3. **Genetic code, DNA mutation and repair.**
4. **Regulation of gene expression.**
5. **Genetic engineering and recombinant DNA technology.**

Unit 3: Applied Biochemistry:

Describe common clinical conditions and diseases related to medical biochemistry

12 credit point for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Unit 1: Basic biochemistry	1	biochrmistry	**10 hours** **Biochemistry of Obesity and starvation**	8.3%
	1		**10 hours** **Oxidant Stress, Antioxidants and Radiation Biology**	8.3%
	1		**10 hours** **Biochemistry of Fatty Liver**	8.3%
	1		**10 hours** **Tissue metabolism (RBCs, Muscles, Collagen, etc**	8.3%
	1		**10 hours** **Biochemistry of Cell Membranes**	8.3%
	1		**10 hours** **Biochemistry of body fluids**	8.3%
	1		**10 hours** **Purines and Pyrimidine metabolism**	8.3%

Unit 2: Molecular biology and Tumor markers	1		**10 hours** Tumour markers	8.3%
	0.5		**5 hours** Flow of genetic information (replication, transcription, translation)	4.1%
	0.5		**5 hours** Regulation of gene expression	4.1%
	0.5		**5 hours** Genetic code, DNA mutation and repair	4.1%
	1		**10 hours** Genetic engineering and recombinant DNA technology	8.3%
Unit 3: Applied Biochemistry:	1		**10 hours** Describe common clinical conditions and diseases related to medical biochemistry	8.3%
	0.5		Formative Assessment	4.1%
Student signature	1		Principle coordinator Signature	Head of the department Signature

Training: 48 points

Clinical training	Credit points	Responsible department	Attendance	Percent-age of Achieved points
	12	Biochemistry Department	Attendance of biochemistry lab for at least 8 hours / 30week for Practice in CHO ,Lipid and Protein metabolism including: • Performance of Oral Glucose Tolerance Test (OGTT) by enzyme-linked immunosorbent assay (ELISA) and its interpretation. • Estimation of glycated hemoglobin (HBA1c) • Lipid profile (cholesterol, HDL, LDL, triacylglycerol and HDL/LDL ratio) by Spectrophotometry. • Oxidized low density lipoprotein (Ox-LDL) level by ELISA. • Kidney function test by Spectrophotometry. • Estimation of total plasma proteins by Spectrophotometry. • Serum protein electrophoresis.	25%
	8		Attendance of biochemistry lab for at least 7.5 hours /30 week for Practice in **Hormone and hemoglobin metabolism and Biochemistry of Vitamins** including: • Estimation of Follicle stimulating hormone (FSH) and Leutenizing hormone (LH) levels by Spectrophotometry. • Estimation of testosterone level by Spectrophotometry. • Estimation of prolactin level by	16.7%

			Spectrophotometry. • Hemoglobin electrophoresis. • Estimation of total bilirubin, direct bilirubin and indirect bilirubin • Vitamin C level by High Performance Liquid Chromatography (HPLC) method. • Vitamin D level by enzyme-linked immunosorbent assay (ELISA).	
	12		Attendance of biochemistry lab for at least 7.5 hours /30 week for Practice in biochemistry of enzymes • Estimation of Lactate Dehydrogenase (LDH) isoenzymes by electrophoresis. • Estimation of Creatine phosphokinase (CPK) isoenzymes by electrophoresis. • Estimation of Alkaline phosphatase (ALP) isoenzymes by electrophoresis.	25%
	8		Attendance of biochemistry lab for at least 7.5 hours /30 week for Practice in **Biochemistry of Obesity and starvation** • Obesity screening test. • Metabolic screening test. • Detection of biomarkers in adipose tissue by tissue culture.	16.7%
	8		Attendance of biochemistry lab for at least 7.5 hours /30 week for Training on **Mineral Metabolism** • Estimation of Total Iron Binding Capacity (TIBC)and iron level by enzyme-linked immunosorbent assay (ELISA). • Sodium and Potassium levels by Flam Photometer.	16.7%

	8		Attendance of biochemistry lab for at least 7.5 hours /30 week for Training on **Biochemistry of body fluids and tissue metabolism** • Semen analysis by microscopic examination and peoxidase test for spermatogenic cells by peroxidise stain. • Urine examination by strip and direct microscopic examination. • Detection of Cardiac markers by enzyme-linked immunosorbent assay (ELISA)	16.7%
Student signature			Principle coordinator Signature	Head of the department Signature

1. Practical experiments log book

No	Experiment	Number of each experiments
1	Estimations of Basic Biochemical Techniques of carbohydrates, proteins, lipid, hormones, vitamins and knowing how to assess different factors such as enzymes or mineral on the biochemical bases.	
2	Different methods of collection and preparation of Blood samples and body fluid samples	
3	Estimations of Metabolic error of Carbohydrates, Protein, Lipid, Hormones, Enzymes and Minerals such as measurement of vinyl Mandlic acid, amnioacidurai, Glycogen storage diseases, etc.	

Requirements

I. Attendance of at least 60% of practical sections.

II. Doing at least 5 experiments in each.

III. Students are able to do experiments and recognized procedures.

IV. Practical assessment at the end of course

2- Practical Tests presentation log book

Record the cases related to the module that you have presented in a seminar or other activity.

H.N	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

1- Requirements

1. Attendance of at least 50% of the clinical seminars
2. Presentation of at least 3 cases in the seminar per year
3. Log of at least 1 evidence-based guidelines

3- Procedures log book

H N	Procedure	Level of competency*	Location	Signature

* Level of competency

A- Independent performance

B- Performance under supervision

C- Observed

2- Practical experiments presentation log book

Record the cases related to the module that you have presented in a seminar or other activity.

A- Tests examination log book

NO.	Name of the test	Level of participation *	Location	Signature of supervisor

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

2- Practical experiments presentation log book

Record the cases related to the module that you have presented in a seminar or other activity.

A- Tests examination log book

NO.	Name of the test	Level of participation *	Location	Signature of supervisor

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

2- Practical experiments presentation log book

Record the cases related to the module that you have presented in a seminar or other activity.

A- Tests examination log book

NO.	Name of the test	Level of participation *	Location	Signature of supervisor

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

3- Procedures log book

A- Tests examination log book

NO.	Name of the test	Level of participation*	Location	Signature of supervisor

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

A- Tests examination log book

NO.	Name of the test	Level of participation*	Location	Signature of supervisor

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

Requirements

I. Attendance of at least 60% of practical Laboratory sections.

II. Doing all experiments in each done independent

4- Rotation / attendance proof

أسم المعمل التى تدرب بها	التاريخ	توقيع رئيس القسم	توقيع مدير المعمل

Post graduate teaching
Lectures

Date	Title of lecture	Signature of Staff member

Post graduate teaching
Lectures

Date	Title of lecture	Signature of Staff member

Post graduate teaching
Lectures

Date	Title of lecture	Signature of Staff member

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)**
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities And use logbooks).								
Appraises evidence from scientific studies.								
Conduct epidemiological Studies and surveys.								
Perform data management including data entry and analysis and Using information technology to manage information, access on-line medical information; and support their own education.								

General skills	could not judge (0)	strongly disagree (1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Facilitate learning of students, lab technical staff and other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients, their families, lab technical staff and other health professionals.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								
Provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member of a 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, business practices.								

General skills	could not judge (0)	strongly disagree (1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.								
Work effectively in relevant academic and health care delivery settings and systems including good administrative and time management.								
Adopt cost-effective practice and resource allocation that does not compromise quality of services.								
Assist patients in dealing with system complexities.								

Scientific Seminar

Requirements

- Attendance of at least 50% of the clinical seminars
- Presentation of at least 3 cases in the seminar per year
- Log of at least 1 evidence-based guidelines

First: Seminars Attendance

Date	Attendance	Signature of supervisor

B- Second: Seminars presentation

Date	Staff group*	Signature

Activity	Your role **	Date	Signature of supervisor

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

Elective Course 1

Requirements Credit points: 2 credit point.

- Minimal rate of attendance 80% of lectures and 80% of training

One of these courses

- Advanced medical statistics.
- Evidence based medicine.
- Medicolegal aspects and ethics in medical practice and scientific research.
- Quality assurance of medical education.
- Quality assurance of clinical practice.
- -Hospital management

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

Elective Course Lectures

Signature	Topic	Attendance	Date

Elective course practical skills

Signature	Topic	Attendance	Date

Academic activities
Lecture, Seminars, conference, workshop

Signature of the supervisor	Date	Your role **	Activity

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

Formative assessment and MCQ

Signature	Date	Grade*	Score	Exam

*Grade:-

A- Excellent
B- Very good
C- Good

الرسائل العلمية

عنوان الرسالة

عربـــــــــــــــــي :

انجلـــــــــــــــــيزي :

المشرفـــــــــــــــون :

1- .....
2- .....
3 .....
4- .....

تاريخ القيــد لدرجــة : ..... / / 20

تاريخ التسجيل الموضوع: .....

المتابعة الدوريـــــــــة : .....

التاريخ	ما تم انجازه من برتكول البحث	المتبقي	توقيع المشرفين

PUBLICATIONS

_____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Date	Signature	Responsible (course) Coordinator Name:	Course Structure Mirror
			Course 1: Microbiology &Immunity and Hematology
			Course 2: Physiology and metabolism of Hormones
			Course 3: Histopathology&Immunohistochemistry
			Course 4 Biochemistry (speciality course)
Elective Course Certificate (s) Dates:			
		Master Degree Thesis Acceptance Date:	
		Fulfillment of required credit points prior to final examination	
		Pathology M Sc Degree Principle Coordinator:	
		Date approved by Pathology Department Council:	

يعتمد ،
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