Logbook of MS
of Medical Biochemistry

Personal Data

Name: .....

Department: .....

Mobile Number:.....

E-mail Address: .....

Master Degree:

Date of registration: ...../...../.....

Signature:

Head of the Department

Vice Dean for research and postgraduate study

Aim of the Logbook:

To provide evidence that the candidate attained the desired level of competence required to gain the award. In this book, the candidate will document all academic and clinical skills he/she attained during their training.

Important regulations (for MS candidates):

-**To be legible for the first part MS exam** you have to attend at least 70% of the lectures of each course in the semester as evidenced by the logbook

-**To be legible for the (MCQ online) exam at the end of each of second part semesters** you have to attend at least 70% of the lectures of each course/module in the semester as evidenced by the logbook.

- **To be legible for the final MS exam :**

1- A time interval of 36 months must pass since the **day of registration to the job** for residents and demonstrators and 30 months since the day **of degree registration** for non residents.

2- You have to spend **a year of daily** clinical/practical training in the department or **two years with three times/week** practical/clinical training.

3-You have to register 4 semesters on Ibn lhaythm registration page.

4- You have to attend 70% of the lectures of each course in the second part of MS degree.

5- You have to fulfill and perform 70% of the practical skills documented in the logbook.

Bylaws of the MS

	المقـــرر	Course	الكـــود	الساعات المعتمدة	
				المقـــرر	الإجمالي
الفصل الدراسي الأول والثاني	مبادئ الكيمياء الحيوية الطبية والبيولوجيا الجزيئية	Basic Medical Biochemistry & Molecular Biology	BIC 504	٦	٨
	المقررات الاختيارية (يختار مقرر واحد) - أساسيات علم المناعة - السيتوكينات	Elective Course - Basic Immunology - Cytokines	BIC 504 BI BIC 504 CY	٢	
الفصل الدراسي الثالث والرابع					١٥
	الكيمياء الحيوية الطبية والبيولوجيا الجزيئية المتقدمة	Advanced Medical Biochemistry& Molecular Biology	BIC 504 Ad	١٣	
	المقررات الاختيارية (يختار مقرر واحد) كيمياء الجهاز العصبي- كيمياء الجهاز التنفسي	Elective Cours -Neurochemistry -Chemistry of respiration	BIC 504 NC BIC 504 CR	٢	
كراسة الأنشطة	الكيمياء الحيوية الطبية والبيولوجية الجزيئية برنامج التدريب العملي في			١٠	١٢
	أنشطة علمية مختلفة			٢	
الرسالة					١٠
	إجمالي الساعات المعتمدة				٤٥

نظام الامتحان وتوزيع الدرجات: (ماجستير الكيمياء الحيوية الطبية)

امتحان الجزء الأول

المقرر	الاختبار	الدرجة				إجمالي
		تحريري	MCQ	شفهي	عملي	
مبادئ الكيمياء الحيوية الطبية والبيولوجيا الجزيئية	إختبار تحريري مدته ثلاث ساعات + اختبار شفهي + اختبار عملي	١٤٤	٣٦	٦٠	٦٠	٣٠٠
المقرر الاختياري	اختبار تحريري مدته ساعة واحدة	٤٨	١٢			٦٠
	إجمالي الدرجة					٣٦٠

الامتحان النهائي الشامل

المقرر	الاختبار	الدرجة	إجمالي

		تحريري	MCQ	شفهي	عملي	
الكيميـاء الحيويـة الطبية والبيولوجيـا الجزيئية المتقدمة	إختباران تحريريان مدة كلا منهما ثلاث ساعات + اختبار شفهي + اختبار عملي	١٢٠ + ١٢٠	٣٠ + ٣٠	١٥٠	١٥٠	٦٠٠
المقرر الاختياري	اختبار تحريري مدته ساعة واحدة	٤٠	١٠			٥٠
	إجمالي الدرجة					٦٥٠

Contents

Section I:

Scientific Lectures

Name of the course: ***Medical Biochemistry & Molecular Biology (Basic level I)***

Compulsory: ***First part:***

Credit hours: 6 ***Semester: (spring/fall/summer) year.....***

Date	Title of the lecture	Lecturer's signature
Module 1		
Carbohydrate chemistry		
Lipid chemistry		
Protein chemistry		
Purine & pyrimidine chemistr metabolism		
Physical chemistry		
Molecular biology & recombi		
Vitamins& enzymes		
Basic knowledge of Cell cycle apoptosis.		
Module 2		
Carbohydrate metabolism.		

Lipid metabolism		
General protein metabolism		
Individual amino acid Metabolism		
Principles of Heme metabolism		
Metabolic interrelation & minerals		
Mechanism of hormonal action		
Basic function of Cell organelles & structure of biological membrane		
Biological oxidation &Xenobiotic metabolism		

Name of the course: Advanced Medical Biochemistry &Molecular Biology)

(Basic level II)

Compulsory **Second part:**

Credit hours: 13 **Semester: (spring/fall/summer) year…….**

Date	Title of the lecture	Lecturer's signature
Module 1		
1.Water metabolism & acid-base balance		
2. Chemistry of carbohydrate, lipid & protein		
3.Metabolism of Carbohydrate& glycoprotein.		
4. Diabetes mellitus		
5 Metabolism of lipid & ecosanoids		
6.. Metabolismof protein & individual amino acids.		
7. Purine & pyrimidine nucleotides metabolism		
8. Porphyrine metabolism & bile pigment.		
9.Metabolic integration& the		

Fed/Fast cycle.		
10. Biological Transport and cell membrane		
11. Biochemistry of endocrine glands.		
12. Hormonal action & Cell signaling.		

Date	Title of the lecture	Lecturer's signature
Module 2		
1. Molecular biology & biotechnology		
2. Oncology (oncogenes & tumor markers).		
3. Immunochemistry and tissue chemistry		
4. Micronutrients (Vitamins & Minerals)		
5. Enzymes		
6. Muscle chemistry & metabolism		
7. Biological oxidation & bioenergetics.		

8. Xenobiotics and detoxification		
9. Free radicals and antioxidants		
10. Blood (plasma proteins & homeostasis).		
11. Protein traffic and sorting		
12. Apoptosis		

Name of the course: Basic immunology

Elective **First part**

Credit hours: 2 **Semester: (spring/fall/summer) year.....**

Date	Title of the lecture	Lecturer's signature
1- Development and function of the organs and cells involved in immune response		
2- Properties of antigens and antibodies and the way they interact with each other		
3- Genetic control and regulation of antibody		
4- Different types of immune response		
5- Different types of immunologic disorders		
6- Immunologic aspects of transplantation		
7- The role of immune system in cancer		
8- Currently available vaccines and recommended immunization schedules		

Name of the course: Cytokines

Elective **First part**

Credit hours: 2 **Semester: (spring/fall/summer) year.....**

Date	Title of the lecture	Lecturer's signature
1- General properties of the cytokines		
2- Different cytokines that mediate and regulate the innate Immunity		
3- Different cytokines that mediate and regulate the adaptive Immunity		
4- The role of cytokines in hematopoiesis		

Name of the course: Neurochemistry

Elective **Second part**

Credit hours: 2 **Semester: (spring/fall/summer) year.....**

Date	Title of the lecture	Lecturer's signature
1- : Neurotransmitters and the Receptors		
2- Excitatory and InhibitoryNeurotransmitters		
3- Important points as regard Neurotransmitters:		
4. Biochemical Basis of some neuropsychatric disorders:		

Name of the course: Chemistry of Respiration

Elective Second part

Credit hours: 2 Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
1- Respiration		
2- Acid-base regulation		
3- Acid-base imbalance		

Section II:

Practical skills

First part: 2 credit hours

List of requirements

Name of the practical skill	Total number required	Observer	Assistant	Independent
Identificaion of laboratory reagents and instruments. Guidelines of work in research lab. Safety & ethical code.	2	2		
Colorimetric estimation (manual and automatic)	10		1	9
Urine analysis	4	1		3
Chemical DNA extraction	3	1	1	1
Agarose gel electrophoresis	3	1	1	1
Estimation of the risks of handling and use of chemical agents on community and environment	1	1		
Physical chemistry	3		1	2

2nd part: 8 credit hours

Name of the practical skill	Total number required	Observer	Assistant	Independent
DNA extraction (spincolumns).	3	1		2
Electrophoresis (vertical and horizontal).	4	2		2
Molecular biology techniques: conventional PCR.	3	1		2
Gene polymorphisms by restriction endonucleases.	2	1		1
Measurement of some parameters by ELISA.	5	1		4

Practical skills log

(Under each procedure insert a number of rows equal to the no. required)

Practical skill 1 Identificaion of laboratory reagents and instruments.			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Observer			
Observer			
Practical skill e 2: Colorimetric estimation (manual and automatic)			
Assistant			
Independent			
Independent			
Independent			
Independent			
Independent			
Independent			

Independent			
Independent			
Independent			

Practical skill 3 urine analysis

Level of participation	**Date**	**Location**	**Signature of supervisor**
Observer			
Independent			
Independent			
Independent			

Practical skill 4: Chemical DNA extraction

Observer			
Assistant			
Independent			

Practical skill 5 Agarose gel electrophoresis			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Observer			
Assistant			
Independent			
Practical skill 6: Estimation of the risks of handling and use of chemical agents on community and environment			
Observer	**1**		
Practical skill 7 Physical chemistry			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Assistant			
Independent			
Independent			

Practical skill 8: DNA extraction (spincolumns).			
Observer			
Independent			
Independent			
Practical skill 9 Electrophoresis (vertical and horizontal).			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Observer			
Observer			
Independent			
Independent			
Practical skill 10: Molecular biology techniques: conventional PCR			
Observer			
Independent			
Independent			

Practical skill 11: Gene polymorphisms by restriction endonucleases.			
Observer			
Independent			
Practical skill 12: Gene polymorphisms by restriction endonucleases.			
Observer			
Independent			
Independent			
Independent			
Independent			

Section III:

Seminars

List of requirements:

1- Seminar attendance: 5

2- Seminar performance: 1

1- Attendance

Topic	Date	Supervisor signature

2- Performance

Topic	Date	Supervisor signature

Section IV:

Student teaching sections.

List of requirements: 70

(May include multiple pages)

Date	Section subject	Supervisor's signature

Section V:

Scientific activities

(Conferences/workshops)

List of requirements

Conferences			
Total number required	**Attendance**	**Organization**	**Presentation**
2			
Workshops			
Total number required	**Attendance**	**Organization**	**Presentation**
1			

Activity (Conference/Workshop	Role	Date	Supervisor's signature