Logbook of PhD of Medical Biochemistry

Personal Data

Name: .....

Department: .....

Mobile Number: .....

E-mail Address: .....

PhD 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 MD/PhD candidates):

-**To be legible for the first part MD 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 MD/PhD exam :**

1- A time interval of 36 months must pass since the **day of degree registration**.

2- You have to take your practical/clinical training **three times/week** for **two years** .

3-You have to register 5 semesters on Ibn lhaythm registration page.

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

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

القسم المانح للدرجة : الكيمياء الحيوية الطبية

المقررات الدراسية وتوزيع الساعات المعتمدة

	المقـــرر	Course	الكـــود	الساعات المعتمدة	
				المقـــرر	الإجمالي
الفصل الدراسي الأول	علم الوراثة	Genetics	BIC 604 GE	٤	٥
	الكيمياء الحيوية الطبية والبيولوجيا الجزيئية (مقرر خاص)	Special course in Medical Biochemistry & Molecular Biology	BIC 604 SB	١	
	دراسات متقدمة في المجال الطبي : - طرق البحث العلمي - الإحصاء الطبي - استخدام الحاسب الآلي في العلوم الطبية	يتم عقد دورات تدريبية لها ويتم استيفاء هذه الدورات بحضور ها			
الفصل الدراسي الثاني	مخصص لكتابة بروتوكول الرسالة وتسجيل رسالة الدكتوراه التي تبدأ مع بداية الفصل الدراسي الثاني وتستمر لمدة أربع فصول دراسية				
الفصل الدراسي الثالث والرابع والخامس والسادس	الكيمياء الحيوية والبيولوجيا الجزيئية المحدثة	Medical Biochemistry & Molecular Biology (advanced course)	BIC 604	٢٣	٢٥
	المقررات الاختيارية (يختار مقرر واحد) : - تقييم وظائف الأعضاء - بيولوجيا التناسل - الأمراض البيئية والغذائية	Elective Courses: - Organ system function assessment	BIC 604 OF BIC 604 RB	٢	

		BIC 604 NB	- Reproductive biochemistry - Nutritional Biochemistry		
كراسة الأنشطة	• برنامج التدريب العملي في الكيمياء الحيوية الطبية والبيولوجيا الجزيئية • أنشطة علمية مختلفة				١٥
الرسالة	الرسالة تبدأ مع بداية الفصل الدراسي الثاني وتستمر لمدة أربع فصول دراسية				١٥
	إجمالي الساعات المعتمدة				٦٠

نظام الامتحان وتوزيع الدرجات: (دكتوراه الكيمياء الحيوية الطبية)

امتحان الجزء الأول

المقرر	الاختبار	الدرجة تحريري
علم الوراثة	اختبار تحريري مدته ثلاث ساعات	١٠٠
الكيمياء الحيوية الطبية والبيولوجيا الجزيئية (مقرر خاص)	اختبار تحريري مدته ثلاث ساعات	١٠٠
	إجمالي الدرجة	٢٠٠

الامتحان النهائي الشامل

المقرر	الاختبار	الدرجة			إجمالي
		تحريري	شفهي	عملي	
الكيميـاء الحيويـة الطبيـة والبيولوجيـا الجزيئية المحدثة	إختباران تحريريان مدة كلا منهما ثلاث ساعات + اختبار شفهي + اختبار عملي	١٠٠ + ١٠٠	١٠٠	١٠٠	٤٠٠
المقرر الاختياري	اختبار تحريري مدته ساعة واحدة	٦٠			٦٠
	إجمالي الدرجة				٤٦٠

Contents

Section I:

Scientific Lectures

Name of the course: First part PhD Medical Biochemistry (Genetics)

Compulsory/Elective: Compulsory

Credit hours: 4 hours

Semester: (spring/fall/summer) **year: .....**

Date	Title of the lecture	Lecturer's signature
	Genetics as an important science	
	Human Chromosomes	
	Principle of Mendelian's law of inheritance	
	Basics of molecular genetics	
	Modes of inheritance	
	Genes & Biochemistry	
	Genetics & Hemoglobin Disorders	
	Role of Genes in Carcinogenesis	
	Genetic Counseling	
	Prenatal Diagnosis and treatment of genetic diseases	

Name of the course: First part PhD Medical Biochemistry (Special course)

Compulsory/Elective: Compulsory

Credit hours: 1 hour

Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
	Aging	
	Stem cell	
	Bioinformatics	
	Obesity	
	Nanotechnology	

Name of the course: Second part PhD Medical Biochemistry (Advanced Level)

Compulsory/Elective: Compulsory

Credit hours: 23 hours

Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
Module1: Protein structure and function		
	Updates of amino acids & peptides	
	Updates of structure of protein & protein folding	
	Updates of Globular protein	
	Updates of Fibrous protein	
	Updates of Enzymes (action, kinetics, regulation)	
	Diversity of endocrine system	
	Hormone action & signal transduction	

Date	Title of the lecture	Lecturer's signature
Module2: Bioenergetics and metabolism course		
	Updates of Biological oxidation	
	Updates of Respiratory chain & oxidative phosphorylation	
	Updates of Carbohydrate metabolism & glycoprotein	
	Updates of Lipid metabolism	
	Updates of Protein & individual amino acid metabolism	
	Updates of Nucleic acid metabolism	
	Updates of Metabolic integration & Provision of metabolic fuel	

Date	Title of the lecture	Lecturer's signature
	Module3: Molecular biology	
	Updates of Nucleic acid structure & function	
	Updates of DNA organization, replication, mutation and repair	
	Updates of RNA synthesis, processing & modification	
	Updates of Protein synthesis & genetic code	
	Updates of Regulation of gene expression	
	Updates of Recombinant DNA & Genomic technology	

Date	Title of the lecture	Lecturer's signature
Module4: Special topics in Biochemistry		
	Updates of Nutrition, Digestion & absorption	
	Updates of Micronutrients (vitamins & minerals)	
	Updates of Intracellular trafficking & protein sorting	
	Muscle and cytoskeleton	
	The extracellular matrix	
	White & Red blood cells	
	Plasma proteins	
	Haemostasis and thrombosis	

Name of the course: Second part PhD Medical Biochemistry

(Elective course: Nutritional biochemistry)

Compulsory/Elective: Elective

Credit hours: 2 hours

Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
	Definition	
	Classification of nutrients	
	Energy aspects of food	
	Balanced diet	
	Disorders of nutrition (applied nutrition I)	
	Diet therapy (applied nutrition II)	

Name of the course: Second part PhD Medical Biochemistry

(Elective course: Organ system function assessment)

Compulsory/Elective: Elective

Credit hours: 2 hours

Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
	Liver function tests: ***1- Function of the liver*** ***2- Tests of liver function tests.***	
	Renal function tests ***1- Function of the kidney*** ***2- Test of kidney function tests.***	
	Adreno-cortical function tests ***1- Function of the adrenal glands*** ***2- Tests of adreno-cortical function test.***	
	Thyroid function tests ***1-Function of the thyroid*** ***2-Test of thyroid function test.***	

Name of the course: Second part PhD Medical Biochemistry

(Elective course: Reproductive biochemistry)

Compulsory/Elective: Elective

Credit hours: 2 hours

Semester: (spring/fall/summer) year.....

Date	Title of the lecture	Lecturer's signature
	A molecular view of ovulation	
	An overview of the molecular mechanisms involved in human fertilization	
	Molecular mechanisms of implantation	
	Reproductive messengers	
	Evaluation of sperm function	
	The assessment of oocyte quality	

Section II:

Practical skills

List of requirements

Name of the practical skill	Total number required	Observer	Assistant	Independent
Separation of some biological parameters by chromatography (HPLC)	٤	١	١	٢
RNA extraction	٣	١	-	٢
Reverse transcriptase PCR (RT-PCR)	٢	-	-	٢
Quantitative real-time PCR (qRT-PCR)	٣	١	-	٢
Extract protein from biological samples by trizol	٣	١	-	٢
Western blot technique	٤	١	١	٢
Use Gel documentation system to analyze digital image of the electrophoresis gel bands	٣	١	-	٢

Practical skills log

Practical skill 1: Separation of some biological parameters by chromatography (HPLC)			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Practical skill 2: RNA extraction			
Practical skill 3: Reverse transcriptase PCR (RT-PCR)			
Level of participation	**Date**	**Location**	**Signature of supervisor**
Practical skill 4: Quantitative real-time PCR (qRT-PCR)			

Practical skill 5: **Extract protein from biological samples by trizol**

Level of participation	Date	Location	Signature of supervisor

Practical skill 6: **Western blot technique**

Practical skill 7: **Use Gel documentation system to analyze digital image of the electrophoresis gel bands**

Level of participation:

Observer

Assistant

Independent

Section III:

Seminars

List of requirements:

1- **Seminar attendance:** at least 7 times.

2- **Seminar performance:** at least 2 times.

1- Attendance:

Topic	Date	Supervisor signature

2- Performance:

Topic	Date	Supervisor signature

Section IV:

Student teaching sections

List of requirements: 100 sections.

No.	Date	Section subject	Supervisor's signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

No.	Date	Section subject	Supervisor's signature
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

No.	Date	Section subject	Supervisor's signature
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

No.	Date	Section subject	Supervisor's signature
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

No.	Date	Section subject	Supervisor's signature
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

No.	Date	Section subject	Supervisor's signature
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			

No.	Date	Section subject	Supervisor's signature
61			
62			
63			
64			
65			
66			
67			
68			
69			
70			

No.	Date	Section subject	Supervisor's signature
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			

No.	Date	Section subject	Supervisor's signature
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			

No.	Date	Section subject	Supervisor's signature
91			
92			
93			
94			
95			
96			
97			
98			
99			
100			

Section V:

Scientific activities

(Conferences/workshops)

List of requirements

Conferences			
Total number required	**Attendance**	**Organization**	**Presentation**
٣	√	-	-
Workshops			
Total number required	**Attendance**	**Organization**	**Presentation**
٢	√	-	-

Activity (Conference/Workshop	Role	Date	Supervisor's signature

Role:

-Attendant

-Organizer

-Presenter