



#### كيفية إعداد توصيف المقررات الدراسية للدراسات العليا

توصيف المقررات الدراسية يتضمن توضيح أقل المتطلبات الواجب توافرها في طالب الدراسـات العليـا للحصـول عـلى درجـة الماجســتير والدكتـوراه. يشـمل توصيف المقرر الدراسي الاتي:

- الأهداف التعليمية للدرجة العلمية
- المعرفة والمهارات التي يجب أن يحصل عليها الطالب في نهاية فترة الدراسة والتدريب
  - طرق التدریس (مثال: محاضرات ، ورش عمل، تدریب معملی)
- محتويات المنهج العلمي (الموضوعات العلمية ومراجعها، عدد ساعات تدريس الجزء النظري والعملي والإكلينيكي)
  - طرق تقييم الطالب ( مثال: الامتحانات بكافة صورها، الحضور، المقال العلمي، log book)
    - نظام الامتحانات وكيفية توزيع الدرجات
      - طرق التقييم للمقرر الدراسي
      - المراجعة السنوية والمسئولين عنها.

#### PROGRAMME SPECIFICATION FOR POSTGRADUATE DEGREE

This specification provides a concise summary of the main features of the course and the learning outcomes that a typical candidate might reasonably be expected to achieve and demonstrate if he or she takes full advantage of the learning opportunities provided. More detailed information on the specific learning outcomes, context and the teaching, learning and assessment methods of each module can be found in the Programme Descriptions Handbook.





## COURSE SPECIFICATION

## Faculty of Medicine- Mansoura University

# (A) Administrative information

(1) Programme offering the course.	Master degree in Medical Physiology
(2) Department offering the programme.	Department of Medical Physiology
(3) Department responsible for teaching the course.	Department of Medical Biochemistry
(4) Part of the programme.	First part
(5) Date of approval by the Department's council	10/7/2016
(6) Date of last approval of programme specification by Faculty council	12/7/2016
(7) Course title.	Medical Biochemistry
(8) Credit hours	5 credit hours + 2 credit practical
(9) Course code:	PHYS 504
(10) Total teaching hours.	75 hours lectures + 60 hours
	practical

### (B) Professional information

#### (1) Course Aims.

The broad aims of the course are as follows: (either to be written in items or as a paragraph)

To enable students to understand basic facts about medical biochemistry which enable him to master the molcular physiological mechanisms. Also, to develop skills related to physiological experimental work.

A- Knowledge and Understanding

A3 Describe the principles of functions of cell organelles and basics of DNA replication

A8 Describe the mechanisms aiming at maintenance of homeostatic functions as: pH, body water,

electrolytes, osmolarity and body temperature

A15 Describe the metabloism of CHO, fats and proteins

#### **B-** Intellectual skills

**B3** Solve medical problems related to diagnosis & treatment of physiological problems as: pH, osmolarity, anemia

**B7** interpret the pathophysiological mechanisms of different diseases

**B8** Compare the function of different chemical compounds inside the body

B11 Evaluate risks in the professional practices of Medical Physiology

B12 Plan for development of performance in the field of medical Physiology

#### C- Professional/practical skills

C1 Work effectively in a group in biological science laboratories.

C3 Work efficiently conventional RT-PCR for a gene

C8 Work biochemical analysis for some parameters in blood and tissues samples and gel

electrophoresis

D- Communication & Transferable skills

**D1** Relate course information effectively in the field of general medicine practice.

**D2** Retrieve, manage, and manipulate course information by all means, including electronic means.

**D3** Discuss freely about any medical problem.

 ${\bf D4}$  Present course information clearly in written, electronic and oral forms

### (3) course content.

Subjects	Lectures
Metabolism of carbohydrate	12
Metabolism of fats	8
Metabolism of proteins	16
Molecular mechanism of hormone action	8
Genetic control of protein synthesis.	12
Molecular biology	20
Total teaching hours	75

#### **Practical**

Title	Hours
Microscopic Urine examination	9
Chemical Urine examination	10
Assessment of oxidative stress markers in blood and tissues	8
Assessment of blood glucose and construction of glucose tolerance curve	6
Assessment of renal function test	9
Assessment of liver function tests	6
Conventional PCR	7
Gel electrophoresis	5
Total	60

# (4) Matrix of ILOs of cell and electrophysiology

		ILOs															
content																	
	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 1 5	A 16	A 17
Metabolism of carbohydrat e															V		
Metabolism of fats																	
Metabolism of proteins																	
Molecular mechanism of hormone action								V							$\checkmark$		
Genetic control of protein synthesis.			$\checkmark$					V							V		
Molecular biology															$\checkmark$		

	ILOs																												
Content	Intellectual skills								Content	Practical skills									Transferrable skills										
	В 1	В 2	B 3	E 4	3 1 5	B 5	B 6	В 7	B 8	B 9	B 10	B 11	B 12	B 13		c1	с 2	c 3	с 4	c 5	C 6	C 7	C 8	d 1	d 2	d 3	d 4	d 5	d 6
Metabolis m of carbohyd rate			١	/				V	V			$\checkmark$	$\checkmark$		Microscopic Urine examination	V								$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Metabolis m of fats			١						$\checkmark$			$\checkmark$	$\checkmark$		Chemical Urine examination	$\checkmark$										$\checkmark$	$\checkmark$		
Metabolis m of proteins			١	/				V	V			V	V		Assessment of oxidative stress markers in blood and tissues	$\checkmark$							V		$\checkmark$	$\checkmark$			
Molecula r mechanis m of hormone action			1					$\checkmark$	V			V	V		Assessment of blood glucose and construction of glucose tolerance curve	$\checkmark$							$\checkmark$	$\checkmark$		$\checkmark$			
Genetic control of protein synthesis.			١	/				$\checkmark$	V			V	V		Assessment of renal function test	$\checkmark$							V		$\checkmark$	$\checkmark$	$\checkmark$		
Molecular biology			١	/				$\checkmark$	$\checkmark$			V	V		Assessment of liver function tests								$\checkmark$			$\checkmark$	$\checkmark$		
															Conventional PCR														

						Gel electrophoresis							
						0				1			
										v			

#### (5) Teaching methods.

Method	ILOS covered by this method
5.1. Lectures	A3, A8, A15, B3, B7,B8
5.2. Clinical sections	C1, C3
5.3 Seminars	A3, A8, A15, B3, B7,B8, B11, B12,D1-D4

#### (6) Assessment methods.

Tools	Marks	Percentage of the total mark	ILOS assessed by the exam.	schedule
5.1:MCQ exam	36	12 %	A3, A8, A15, B3, B7,B8	2 <sup>nd</sup> week of Jan / July
5.1:Written exam	144	48 %	A3, A8, A15, B3, B7,B8	April/Oct
5.2:Oral exam	60	20 %	A3, A8, A15, B3, B7,B8	April/Oct
5.3:Practical exam	60	20%	C1, C3	April/Oct
Total marks	300			

#### (7) References of the course.

7.1. Hand books: Staff member books & lecture notes.

7.2. Textbooks. Guyton Medical Physiology, Ganong Physiology

#### (8) Facilities Required for Teaching And Learning.

The facilities include: appropriate teaching accommodation, teaching aids, laboratories, laboratory equipment, computer, etc, facilities for field work, site visits, etc, which are necessary for teaching the course.

#### (9) Facilities and resources mandatory for course completion.

#### 8.1- Attendance Criteria.

Minimum acceptance attendance in each course is 75%

#### 8. 2- Assessment tool.

Minimum percentage accepted is 60% of total marks

#### Course coordinator: Dr. Abdelaziz Hussein

Head of the department: Dr. Sabry Mohamed Awad Gad