



Quality Assurance Unit



Tanta University  
Faculty of Medicine

**Department of Physical Medicine, Rheumatology & rehabilitation**

**Course Specifications**

**Physiology and Human Anatomy and embryology for Physical Medicine, Rheumatology & rehabilitation, Doctorate degree**

**2015-2016**

physiology and Human Anatomy and embryology Physical Medicine, Rheumatology & rehabilitation Doctorate Degree Course Specifications

*University: Tanta*

*Faculty: Medicine*

*Department: Physical Medicine, Rheumatology & Rehabilitation.*

### **A- Administrative Information**

**Course title: physiology and Human Anatomy and embryology for Physical Medicine, Rheumatology & Rehabilitation Doctorate Degree.**

**Department offering the program: Physical Medicine, Rheumatology & Rehabilitation.**

- **Departments responsible for the program: Physical Medicine, Rheumatology & Rehabilitation**
- **Course Code: PRR 9001, 9002**
- **Academic Level : second**
- **No. of Credit/taught hours:**  
**Theoretical: 4    practical: 2 credit hour.**
- **Authorization date of course specification: 8/11/2015**

### **B- Professional Information**

#### **1- Overall Course aims:**

- Our course aim to offer advanced knowledge which is interdisciplinary in its approach to scientific research, reflecting the interest of our faculty and breadth of the discipline of physiology to help the graduate to move onto the rewarding and challenging professional careers.

#### **2- Intended learning outcomes (ILOs):**

##### **a-knowledge and understanding:**

By the end of the course the graduate should be able to:

- a.1 recognize the basic theories and principle needed in his career.

##### **b-Intellectual skills:**

- b.1 Integrate basic science of physiology, of nervous system, and muscles with clinical care of patients with rheumatic and neurological disorders
- b.2 Integrate basic science of anatomy of connective tissue, bone, joint and muscle with clinical care of patients with rheumatic disorders.
- b.3- analyze and prioritize the medical problems.

##### **c. General transferable skills:**

c.1 Utilize the resources of biomedical information including electronic facilities to update their knowledge.

### 3-Course contents:

Course title	topic	No. of lectures/week	No. of credit hours	
			theoretical	practical
	physiology	2	2	1
	Human anatomy	2	2	1

Detailed contents of the course topics. (Syllabus contents): it will be annexed

### 4-Teaching and learning methods:

4.1 Illustrated lectures.

4.2 Tutorial is scheduled and previously announced special topics from the curriculum are discussed in the tutorial.

4.3 Assignment to be prepared by the graduate in one of the special topic taught.

### 5- Student Assessment:

Log book & MCQ at the end of the semester + as a part of the final exam of first part

### 6-Assessment schedule:

According to faculty rules of post graduate, 2 exams are done per year at April and October, each include written, oral and clinical exams.

### 7- Weighing of assessments:

- MCQ exam will be done at the end 1<sup>st</sup> semester (at the end of 15 week)

written examination	(120 degrees) 60%
Oral examination	(80 degrees) 40%
Total	100%(200 degrees)

### 8- List of references:

#### List of references of physiology

8.1. Textbooks:

- Guyton &Hall textbook of Human Physiology and Mechanisms of Disease.

- Gannon (review of medical physiology).

8.2. Recommended books:

- Applied physiology in intensive care by M.R. Pinsky (Editor), J. Mancebo (Editor), L. Brochard (Editor), Gran Hedenstierna 2009.

- An introduction to human disease: pathology & pathophysiology correlations by Leonard Crowley. Hardcover August 2009.

- **List of references of anatomy:**

- Text book: Recommended books

- -Gray's Anatomy

- -Atlas of anatomy (Nutter, Grant....etc)

- - Fundamental anatomy ( Hartwing , Walter Carl 2008)

- 8.3 Periodicals and web sites

- [www.innerbody.com](http://www.innerbody.com)

- [www.instantanatomy.net](http://www.instantanatomy.net)

**9- Other resources/ facilities required for teaching and learning to achieve the above ILOs:**

- All facilities required for teaching are available.

**10-We certify that all of the information required to deliver this course is contained in the above specifications and will be implemented.**

The annex :

**Topics of physiology**

Pain, sensation, analgesic system

Muscle and nerve except smooth muscles

Neuropeptide and chemical transmitters

Regulation of heart rates control of blood pressure

Pulmonary function test and pulmonary ventilation

Hypoxia

Anaemias

Biological hemostasis

Hormones of suprarenal cortex and thyroid

Ca metabolism

Renal blood flow

Glomerular filtration rate

Gastric secretion

Effect of training and de-conditioning on cardiovascular system

Energy balance

Muscle fatigue

Obesity

physical fitness and sport physiology

Effect of exercise on circulation , respiratory system and pain analgesic system

Nerve and neuromuscular transmission

Thalamus and hypothalamus

Cerebellum and basal ganglia

Posture and equilibrium

Receptors and ascending and descending tracts

Control of motor activity (reflexes, muscle tone and postural reflexes)

### **Topics of anatomy:**

#### **Applied anatomy:**

- Neuropath ways
- Spinal nerves and dermatomes
- spinal cord
- brain stem
- Cerebellum
- thalamus
- internal capsule
- Cranial nerves
- Nerve plexuses
- Muscles( features ,types and action)
- Joints( types , structure , movements and stability )
- Joints of upper and lower limbs
- Muscles groups of upper and lower limbs
- Respiratory muscles
- Back and abdominal muscles
- Face muscles
- Surface anatomy

Course coordinator and head of department
Name.....
Signature..... Date.....
Head of quality assurance unit:
Name.....
Signature..... Date.....