



Quality Assurance Unit



Tanta University  
Faculty of Medicine

**Department of Medical Physiology**

**Course specifications**

**Medical Physiology for  
Tropical Medicine & Infectious  
disease Diploma & Master  
degrees First Part**

**2016/2017**

*Course specifications: Medical Physiology for Tropical Medicine & Infectious disease Diploma & Master degrees, 2016-2017*

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Medical Physiology for Tropical Medicine & Infectious disease Diploma & Master degrees  
Course specifications

**University: Tanta**

**Faculty: Medicine**

**Department: Medical Physiology**

### **A- Administrative Information**

- **Program title: Medical Physiology for Tropical Medicine & Infectious disease Diploma & Master degrees**
- **Department offering the program : Tropical Medicine & Infectious disease**
- **Departments responsible for the program: Medical Physiology & Tropical Medicine & Infectious disease**
- **Course Code: TROP 7001 & TROP 8001**
- **Academic year/ Level : 2016 /2017**
- **No. of Credit/taught hours: 1theoretical credit hour(1 hour/week for 15 weeks)**
- **Authorization date of course specification: / /**

### **B- Professional Information**

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

- Our course aim to offer advanced knowledge in Medical Physiology related to tropical Medicine and to help the graduate to move onto the rewarding and challenging professional careers.

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

##### **a. knowledge and understanding:**

At the end of the course the graduate should be able to

a.1 Identify the basic theories and principles of basic Medical Physiology that help him or her to understand endemic and infectious diseases; regarding diagnosis and control.

a.2 Demonstrate a basic knowledge of the defect in physiological control mechanisms that result in diseases.

##### **b. Intellectual skills:**

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

b.1 Solve common medical problems related to endemic and infectious diseases.

b.2 Analyze related medical topics in medical journals for researchers in endemic and infectious diseases.

##### **d. General transferable skills:**

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

**Course specifications: Medical Physiology for Tropical Medicine & Infectious disease Diploma & Master degrees, 2016-2017**

- d.1 Apply self evaluation and specify his or her medical educational needs.  
 d.2 Use different learning resources to get knowledge and information..

**3- Course contents:**

Course title	Topic	No. of credit hours	No of Credit points	Remarks
Medical Physiology	Tropical Medicine & Infectious disease	2 <sup>1</sup> / <sub>3</sub> hs (1for Medical Physiology)	7 points (3for Medical Physiology)	Prerequisite with biochemistry

**Detailed contents of the course topics. (Syllabus contents):**

**General topics**

Week No.	topic
1-	1- Hemostasis, anticoagulants and hemorrhagic disorders.
2-	2- pain, pain analgesia system 3- Homeostasis and Ca <sup>++</sup> homeostasis
3-	4- Arterial Blood Pressure and pathophysiological basis of hypertension.
4-	5- chemical transmitters of ANS.
5-	6- Hemorrhage and shock.
6-	7- Heart rate and its regulation
7-	8- Control of diameter of arterioles
8-	9- Supra- renal cortical hormones and disorders 10- Hormones regulating glucose metabolism. (Diabetes mellitus: PathoMedical Physiology and its complications
9-	11- ABO system, Rh factor, Blood transfusion and its incompatibility. 12- Regulation of body water and electrolytes.
10-	13- Acid – Base balance and disorders 14- Hypoxia and cyanosis
11-	15- Erythropoiesis , Anemia and Polycythemia. 16- Cardiac reserve
12-	17- Thermoregulation & Clinical aspects of thermoregulation 18- Cardiac Output
13-	19- Cellular mechanism of hormonal actions 20- Edema

**Related specialty systems:**

1. Endocrinology.
2. Digestive system.
3. Respiratory system.

4. Blood

**Related specialty topics:**

1. Disturbance of bilirubin metabolism & excretion.
2. Microcirculation, lymphatic, venous regulation & dysregulation.
3. Synthetic, inactivating & immune function of the liver & their disorders.
4. Hypothalamus & body temperature regulation in health and disease.
5. Gastrointestinal reflexes.
6. Neuroendocrinal-immune reaction.
7. Immune system Medical Physiology and pathoMedical Physiology.

**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.
  - 4.4 Seminars scheduled and previously announced to facilitate selection identification of their thesis.
- Each teaching method is designed to serve different educational goal, and together they provide an appropriate stimulating atmosphere for learning.

**5- Student Assessment:**

End semester final examination consists of:

- 5.1. Final written consists of one paper, 3 hours. With the co-requisite subjects The written is divided into 3 parts part1 short questions in the form (state, mention, explain compare define etc). the 2nd part in problem solving question the 3rd part is MCQ questions to assess (a.1, a.2, ).
- 5.2. Oral to assess (a.1, a.2, & b.1,2, d.1,2)

**6- Assessment schedule:**

<b>6.1. End Semester Final one written qualifying examination</b>	At the end of the semester (60% of the total mark)
<b>6.2. oral qualifying examination</b>	After the written (40% of the total mark)

**7- Weighing of assessments:**

**Grading system for End Semester written Exam:**

Grade	%	Code	CGPA points
Excelent	95% or more	A	4.000

**Course specifications: Medical Physiology for Tropical Medicine & Infectious disease Diploma & Master degrees, 2016-2017**

<b>Very Good</b>	90% to less than 95%	A-	3.666
	85% to less than 90%	B+	3.333
	80% to less than 85%	B	3.000
<b>Good</b>	75% to less than 80%	B-	2.666
	70% to less than 75%	C+	2.333
<b>Satisfactory</b>	65% to less than 70%	C	2.000
	60% to less than 65%	C-	1,666
<b>Failed</b>	55% to less than 60%	D+	1.333
	30% to less than 55%	D	1.000
	Less than 30%	F	0.000

**Final comprehensive exam**

<b>Final exam</b>	<b>Final written</b>	<b>Final oral</b>	<b>Total</b>
Final comprehensive exam of Medical Physiology, & biochemistry	30 (60%)	20 (40%)	50

- Final written examination consists of one paper, 3 hour s. With the co-requisite and biochemistry
- Oral examination by two examiners

**8- List of references:**

**8.1. Essential books (Textbooks):**

- Guyton &Hall textbook of Human Medical Physiology and Mechanisms of Disease.
- Gannon (review of medical Medical Physiology).
- Vander's human Medical Physiology.

**8.2. Recommended books:**

- Applied Medical Physiology in intensive care by M.R. Pinsky (Editor), J. Mancebo (Editor), L. Brochard (Editor), Gran Hedenstierna 2009.
- An introduction to human disease: pathology & pathoMedical Physiology correlations by Leonard Crowley. Hardcover August 2009.
- Critical pathways in cardiovascular medicine: Second Edition Lippincott Williams & Wilkins.
- Applied Medical Physiology: A manual showing functions of the various organs in disease by Frederich Augustus Rhodes.

**8.3. Periodicals, Web:**

- [www.tebawy.5u.com](http://www.tebawy.5u.com).
- <http://bcs.whfreeman.com>.
- <http://www.bpcc.edu/sciencealliedhealth/humanMedicalPhysiologylinks.html><http://bio-alive.com/animations/MedicalPhysiology.htm>.
- Human Medical Physiology from cell to system By: Lauralee Sherwood.

**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.**

We verify that the above course and the analysis of students and external evaluator opinions are accurate.

Course coordinator and head of department  
name.....signature.....Date.....

Head of quality assurance unit:  
name.....signature.....Date.....