



**Quality Assurance Unit**



**Tanta University  
Faculty of Medicine**

**Department of Tropical medicine and infectious  
diseases**

**Course Specifications**

**Doctorate degree of Tropical medicine and Infectious  
Diseases**

**First part: TROPID 9001 (Applied Physiology)**

**2024 -2025**

**Course Specifications of Tropical medicine and infectious diseases-  
Doctorate degree- First part- TROPID 9001- Applied Physiology**

**University: Tanta**

**Faculty: Medicine**

**Department: Tropical  
medicine and infectious  
diseases**

**A- Administrative Information**

- 1. Course title: Applied pathology**
- 2. Department offering the program: Tropical medicine and infectious diseases department**
- 3. Department responsible for the course: Tropical medicine and infectious diseases department**
- 4. Course code: TROPID 9001**
- 5. Level: First part doctorate degree**
- 6. No. of Credit / taught hours: 1 credit hour/15 taught hours**

**Authorization date of course specification: 3/11/2024**

**B- Professional Information**

**1 – Overall Course aims**

*This course aims to help the student acquire a basic knowledge of clinical physiology, in those areas relevant to differential diagnosis and to perfect management of patients suffering from hepatobiliary, gastrointestinal, endemic or infectious diseases*

**2 – Intended learning outcomes (ILOs):**

**A-knowledge and understanding:**

- 1. By the end of the course, graduates should be able to:**
  - a. 1-Identify the basic physiological theories and principles of hepatic and biliary system function and dysfunction**
  - a. 2- Identify the basic physiological theories and principles of gastrointestinal system function and dysfunction**
  - a.3- Identify the basic physiological theories and principles of common endemic diseases.**
  - a.4- Identify the basic physiological theories and principles of common infectious diseases.**
  - a. 5- Identify the basic physiological theories and principles of general medicine.**

### -intellectual skills

*By the end of the course, graduates should be able to:*

- b. 1- Analyze medical problems referring to their roots in clinical physiology.
- b. 2- Interpret problems of hepatic and biliary system function and dysfunction in relation to clinical physiology
- b. 3- Interpret problems of gastrointestinal system function and dysfunction in relation to clinical physiology
- b. 4- Interpret problems of common endemic diseases in relation to clinical physiology.
- b. 5- Interpret problems of common infectious diseases in relation to clinical physiology.

### C-professional & practical skills

### D-general transferable skills

*By the end of the course, the student should be able to:*

- d. 1- Communicate effectively with colleagues.
- d. 2- Apply different learning resources to acquire knowledge and information.
- d. 3- Adopt effective practice of continuous medical education

### **3-Course contents**

Topics	Theoretical	total credit hour
Applied physiology	1	1

Detailed curriculum and logbook are annexed

### **The course topics**

	Theoretical
<ul style="list-style-type: none"><li>Hemostasis, blood coagulation, anticoagulants &amp; hemorrhagic disorders.</li><li>Arterial blood pressure, types &amp; pathophysiological basis of hypertension.</li><li>Shock, types &amp; compensatory reactions.</li><li>Body temperature regulation &amp; fever.</li><li>Gastrointestinal secretions and hormones.</li><li>Disturbance of bilirubin metabolism &amp; excretion.</li></ul>	<b>1 credit hour / 15 taught hours</b>

	Theoretical
<ul style="list-style-type: none"> <li>• Synthetic, inactivating &amp; immune function of the liver &amp; their disorders.</li> <li>• Gastrointestinal motility and reflexes.</li> <li>• Acid base balance</li> <li>• Water and electrolyte balance</li> <li>• Renal physiology</li> <li>• Pain</li> <li>• Body volume; regulation of food intake and obesity</li> <li>• Enteric nervous system</li> <li>• Gut brain axis and gut microbiota</li> </ul>	
<b>Total</b>	<b>1 credit hour</b>

#### 4-Teaching and learning methods

Methods of teaching and learning	ILOS
Lectures	a1-6, b1-5, d1-3

#### 5-Student Assessment

- Final written and oral exams included in the MD first part exam.

Methods of assessment	ILOS
Written	a1-5, b1-5
Oral	a1-6, b1-5

#### 6- Weighing assessments

Method of assessment	Marks
Written	20 marks
Oral	30 marks
<b>Total</b>	<b>50 marks</b>

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## **7- List of references:**

### **7.1 Course notes:**

### **7.2 Textbooks:**

- Guyton A. C. & Hall, J. E. (1996): Guyton and Hall Human Physiology and Mechanisms of Disease. 6<sup>th</sup> ed. Philadelphia Saunders
- Barrett, K., Barman, S., Yuan, J. and Brooks, H. (2019): Ganong's Review of Medical Physiology, Twenty-sixth Edition. McGraw Hill Education. USA.

### **7.3 Recommended books:**

- Costanzo L.S. (2022): Costanzo Physiology 7<sup>th</sup> ed. Elsevier
- Widmaier, E.P., Raff, H. and Strang, K. T. (2009): Vander's human physiology, The mechanisms of body function. 15<sup>th</sup> ed. McGraw Hill Education. USA.

### **7.4 Periodicals and web sites**

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

## **9- We certify that all 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.**

**Program coordinator: Prof. Ferial El-Kalla**

**Signature.....**

**Course coordinator: Ass Prof. Nehad Hawash.**

**Signature:.....**

**Head of department: Prof. Dina Ziada**

**Signature.....**

**Head of quality assurance unit: Prof. Dina Ziada**

**Signature.....**