



**Quality Assurance Unit**



**TantaUniversity  
Faculty of Medicine**

**Department of Medical Parasitology**

**Course Specifications**

**Medical Parasitology Doctorate  
Degree**

**2016-2017 (para9001)**

Medical Parasitology Doctorate Degree, Course specifications  
University: Tanta Faculty: Medicine Department: Medical Parasitology

### **A- Administrative Information**

- 1- Course title: Medical Parasitology for Doctorate degree
- 2- Department offering the program: Medical Parasitology Department
- 3- Department responsible for the course: Medical Parasitology Department
- 4- Course code: PARA 9001
- 5- Level: Doctorate degree of Medical Parasitology
- 6- No. of Credit / Taught hours:  
Lectures: (4 credit hrs./60 taught hrs.)      Practical: (3 credit hrs./90 taught hrs.)
- 7- Authorization date of course specification: 14/2/2016

### **B- Professional Information**

#### **1 – Overall Course aims:**

The course aims to prepare a graduate having the ability to perform and perfect the bases and methods of medical research , and teach others and transfer of his medical experience to them through providing broad spectrum of knowledge and skills in Medical Parasitology so he gain a positive attitude towards

- Demonstration of the basic principles and concepts of general parasitology
- Awareness about the history of human parasitology
- Orientation about the world wide importance of the parasites
- Awareness about the epidemiology, ecology and biology of endemic and non-endemic parasites and its impact on human health.
- Wide-scale knowledge about diagnostic work-up of parasitic diseases.
- Mention of up-to-date lines of antiparasitic therapy.
- Awareness towards the current medical problems, and up to date hypothesis in Medical Parasitology.
- Orientation about his role in community development , and environmental safety

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

##### **A- knowledge and understanding:**

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

- a.1 Demonstrate the basic principles and concepts of general parasitology
- a.2- Describe the world distribution of parasite and explain the factors determining such distribution and their socioeconomic impact on the community

- a.3- Identify the medically important parasites, with the host parasite relationship.
- a.4- Describe the various aspects of the parasites and their diseases (recent taxonomy, life cycle, pathology and pathogenesis, clinical aspects, treatment and expected complication)
- a.5- Describe the recent aspects of diagnosis including parasitic, immunologic and biomolecular techniques,
- a.6- Describe the mode of action of antiparasitic chemotherapy used in treatment of parasitic infection.
- a.7- Mention the methods of prevention control of parasitic infection and on individual community levels.

**b. Intellectual skills:**

**By the end of the course the candidate will be able to:**

- b.1- Analyze medical problems related to parasitic infections with differentiation between parasitic diseases.
- b.2- Correlate clinical manifestations with the causative parasites and their pathogenesis.
- b.3- Formulate and rearrange dispersed data related to parasitic infections and to be able to present them in a clear concise form.
- b.4- Choose the suitable diagnostic techniques concerning the parasite the parasitic problems encountered (microscopy, serology, or molecular...etc)
- b.5- Design and perform an advanced and innovative research in medical Parasitology.
- b.6- Suggest applicable prevention and control programs

**c. Professional and practical skills :**

**By the end of the course the candidate will be able to:**

- c.1- Perform the basic and modern professional skills in the area of diagnostic Medical Parasitology.
- c.2- Assess and establish updated diagnostic strategies.
- c.3 Write and evaluate a professional medical report for practical Parasitology.
- c.4- Perfect microscopic examination and staining of different medical parasite stages.
- c.5- Perfect manipulation of infectious material in a lab or hospital in a safe way.
- c.6- Examine laboratory specimens (body fluid, excreta or infected tissues) using recent technological tools

**d. General and transferable skills (Attitude & communication skill):**

**By the end of the course the candidate will be able to:**

- d.1- Director share in a teamwork aiming at solving an environmental problem
- d.2- Use the update methods and technology for obtaining and transferring scientific data

- d.3- Arrange with community authorities for planning and achieving a field plan to combat an environmental health problem
- d.4- Perform continuous medical educations
- d.5- Write the scientific article according to the basics of scientific research.
- d.6- Achieve computer skills necessary to make use of medical databases and use the internet for communication.
- d.7- Manage scientific seminars , with good time management.

### 3-Course contents

**Total 7 credit hours Lectures , tutorial & self-directed learning : (4 credit hrs./60 taught hrs.) Practical: (3 credit hrs./90 taught hrs.)**

Topics	No. of hours			
	lecture	Tutorial	Clinical/ lab	Self directed learning
1. history of human parasitology (paleoparasitology)	5			
2. <b>Recent taxonomy</b>	5			
3. Host parasite relationship.	5	2		
4. Evolution of parasitism	5	2		
5. Epidemiology and Ecology of parasites	5			
6. Metabolic pathways in parasites and in vitro parasite maintenance	3			
7. Reproductive potential of parasites	5			
8. Zoonotic diseases	3	3		
9. Diagnosis of parasitic diseases	5			2
10. Anti-parasitic therapy -Drug targets for parasites -Drug resistance	7			2
11. Control of parasite	3			2
<b>Practical course</b>				
1. Identification of different stages of parasites, arthropods and identification of snails.			20	
2. Different methods of urine and stool examinations			10	
3. Different methods of blood examinations.			20	
4. Microscopic skills of preparing, staining of permanent mounted			20	

Topics	No. of hours			
	lecture	Tutorial	Clinical/ lab	Self directed learning
slides of different parasitic stages. infection.				
5. Propagation of parasites in culture and maintenance of life cycle of a parasites in experimental animals.			20	
TOTAL	47	7	90	6

#### **4-Teaching and learning methods**

Throughout the course the candidate achieves these objectives by the following activities.

A- Attending Lectures.

B- Attending Seminars:

The candidate is expected to attend and participate in meetings that update relevant recent topics in molecular biology, relevant biochemical and genotyping of parasites, emerging parasitic problems, advances in parasite vaccinations, and advances in parasitic diagnosis and treatment.

C- Attending Practical Courses

#### **5-Student Assessment**

Log book: For follow up practical activities, effective discussion in lectures and attendance (Minimum acceptance attendance in each teaching course is 75%)  
- To be eligible to enter the exam, log book should be fulfilled and signed by Head of the department

End of semester exam. : MCQ examination will be during the 15th weeks

-Written, oral and practical examination will be a part of the final examination of the first part.

5.1 Written examination: to assess a.1 -7/b.1/b.2/b.3/b.4/c1

5.2 Practical :to assess c.2,3,4,5,6/ d.2.

5.3 Oral : to assess b3,4,5,6

5.4 logbook to assess d.1/d.2/d.3/d.4//d.5/d6/d7

#### **- Assessment schedule**

Formative assessment each month through log book. After completing the 2 semesters of the first part, the candidate will be eligible to enter written , oral,

and practical exams exam hold twice / year at April and October according to post graduate bylaws.

## 6- Weighing of assessments

**This semester will be a part of the final exams. of the first part**

Written examination	90 (60%)
Oral examination	30 (20)
Practical/laboratory work	30 (20)
Other types of assessment (formative only)	Log book
Total	150

## 7- List of references

**7.1 Course notes: the staff lectures, Book edited by staff members of the Parasitology department**

### 7.2 Text book; Human parasitology

By Burton Jerome Bogitsh, Clint Earl Carter, Thomas N. Oeltmann 2005.

### 7.3 Recommended books

#### **An introduction to Parasitology.**

By Bernard E Matthews. Copyright. Cambridge University Press. 1998

#### **Modern Parasitology.**

Textbook of Parasitology. By Francis E and G Cox. Wiley Blackwell, Copyright. 1993

#### **Principles and Practice of Clinical Parasitology.**

Edited by S. Gillespie & Richard D. Pearson. Copyright © 2001 by John Wiley & Sons Ltd, Baffins Lane, Chichester, West Sussex PO19 1UD, England.

#### **Human parasitology**

By Burton Jerome Bogitsh, Clint Earl Carter, Thomas N. Oeltmann 2005.

**Topley & Wilson's microbiology & microbiological infections** By F.E.G. Cox, Derek Wakelin, Stephen H. Gillespie and Dickson D. Despommier 2010

**Manson' Tropical Diseases, 22th edition, in I. Gordon C. Cook and Alimuddin I. Zumla editors, Saunders London, 2009.**

**Foundation of Parasitology, 8th edition, Gerald D. Shimdt and Larry S. Roberts editors, McGraw-Hill companies New York, 2009.**

### 7.4 Periodicals and web sites

#### **International Web site :**

[http://en.wikipedia.org/wiki/List\\_of\\_human\\_parasitic\\_diseases](http://en.wikipedia.org/wiki/List_of_human_parasitic_diseases)

[http://emedicine.medscape.com/infectious\\_diseases-PARASITIC\\_INFECTIONS](http://emedicine.medscape.com/infectious_diseases-PARASITIC_INFECTIONS)

<http://www.cdfound.to.it/html/intpar1.htm>

<http://www.wormdigest.org/content/view/157/2/>  
<http://www.parasitology.com/worms/index.html>  
<http://www.cdfound.to.it/atlas.htm>  
<http://www.soton.ac.uk/~ceb/EctoEndodirectory/medendolinks.htm>  
<http://homepages.ed.ac.uk/cpb/websites.htm>  
<http://4smart.net/dir/sites/368-83115/Molecular-and-Biochemical-Parasitology>  
<http://www.parasitology.com/resources/index.html>  
<http://www.stumbleupon.com/su/36JahK/instruction.cvhs.okstate.edu/JCFOX/HTDOCS/CLINPARA/Index.htm>  
<http://www.slideworld.org/slidestag.aspx/Medical-Parasitology>

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

None

**9-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.....