Quality Assurance Unit

Faculty of Medicine, Tanta University

Program of Master degree of Microbiology

Course Specifications of Medical Parasitology

2019-2020

Course specifications

University: Tanta Faculty: Medicine
Department: Microbiology program: Master Degree

A- administrative Information

1- Program title: Master degree of Microbiology

2- Department offering the degree: Microbiology Department

3- Department responsible for the course: Medical Parasitology Department

4- Course code: MI 8002

5- Level: Frist part master.

6- No. of credit hours: 7credit hours

Lectures 45 Tutorial: 15 Practical: 70 Others: 20 Total: 150 taught hours

7-Authorization date of course specification: 25/2/2020

B- Professional Information

1 – <u>Overall Course aims</u>: the course aims to prepare a person having broad information about the science of medical Parasitology in its different topics; including:

1) **Awareness about the geographical distribution of parasitic diseases.**
2) **Correlation of basic information with the clinical presentations of parasitic disease.**
3) **Decision of appropriate diagnostic tools.**
4) **Correlation of the parasitic infection with the microbiological diseases**

2 – Intended learning outcomes (ILOs):

A- knowledge and understanding:

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

a.1- Identify the medically important parasites, with the host parasite relationship.

a.2-Describe the various aspects of the parasites and their diseases (life cycle, pathology and pathogenesis, clinical aspects, treatment and expected complication)

a.3-Describe the different diagnostic methods.

a.4-Discuss immunological and molecular biological aspects of parasitic infections.

b. Intellectual skills:

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

b.1- Analyze medical problems related to parasitic infections.

b.2-Choose the suitable diagnostic techniques concerning the parasitic problems encountered (microscopy, serology, or molecular…etc)

b.3-Predict the hazards associated with parasitic infections and manipulation of infectious materials and how to prevent and control these infections.

c. Professional and practical skills:

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

C.1-Write and evaluate a professional medical report for applied Parasitology

C.2- perform and assess appropriate methods to establish a proper diagnosis.

C.3- perform Perfect microscopic examination.

c.4-Examine Laboratory specimens (Body fluids, excreta, infected tissues or aspirates

c.5-Know how to manipulate infections material in a lab or hospital.

c. 6-Identify of different stages of parasites, arthropods medically important snail.

d. General and transferable skills:

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

d.1-Be a member in the team work

d.2-Use the up to date methods and technology for obtaining and transferring scientific data

d.3- Perform continuous medical educations

Academic standards for master degree:

Bench mark : New york University Medical center (NYU School of Medicine)

3-Course content

Total: 150 taught hours

Topics	No. of hours			
	lecture	tutorial	Clinical/ lab	Self directed learning
Platythelminthes (Tramatodes) Introduction & Fasciola H. heterophyes & Metagonimus Fasciolopsis buski & Paragonimus Clonorchis sinensis & Opisthorchis other far east parasites Schistosoma spp & Snails	8	1	8	3
Platyhelminthes (Cestodes) Introd. (cestodes) & Taenia spp,cysticercosis H. nana & H. diminuta & D. caninum Echinococcus & Hydatid & Coenurus D. latum & sparganosis	5	1	4	2
Nemathelminthes Int. (Nematodes) & E. vermicularis & Ascaris Hookworms & CLM & VLM Strongyloides stercoralis T. trichiura & Trichostrongylus Trichinella spiralis Capillaria & Filaria	12	3	18	5

Filaria & Dracunculus				
Protozoa Introd. (Protozoa) & Balantidium Amoeba Intest. Flagellates, G. Iamblia, Trichomonas & D. Fragilis and non pathogenic flagellates Plasmodium spp . Babesia + Toxoplasma Cryptosporidium, Isospora & sarcocystis Free living Amoeba Leishmania Trypanosomes (African) Trypanosomes (American)	12	4	18	3
Medical importance of • Mosquitoes & Sand fly • Flies • Fleas, Lice, Bugs • Ticks & Mites Tissue arthropodes	4	2	9	2
Diagnostic techniques	2	2		3
Immunology of parasitic diseases Molecular biology and application in parasitology	2	2		2
Diagnostic Workshops			13	
TOTAL	45	15	70	20
	150			

4-Teaching and learning methods

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

A- Attending Lecture:ILOs a.1/a.2/a.3/a.4/b.1/b.2/b.3..

B- Attending Seminars:ILOs a.1/a.2/a.3/a.4/b.1/b.2/b.3/c.1

.

C- Attending a Practical Course that Covers:ILOs c.1/c2/c3/c4.

1. Identification of different clinical signs of parasitic infection .
2. Different methods of urine and stool examinations.
3. Different methods of blood, CSF, swab and biopsy material examinations.
4. Serological and immunological techniques.

5-Student Assessment

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

5.2 Practical, O.S.P.E and laboratory work

to assess c.1 /c.2/ c3/c.4./c.5/c.6

5.3 Oral : to assess a.2/a.3/a.4/b.1/.2/b.3

6- Assessment schedule

After completing the course, the candidate will be eligible to enter written , oral, and practical exams. Exam is held twice / year at February and August according to post graduate bylaws

7- Weighing of assessments

Written examination	90
Oral examination	15
Practical/laboratory work	45
Total	150

8- List of references

7.1 Course notes: the staff lectures, Book and supplement edited by staff members of the Medical Parasitology department.

7.2 Text book;

- 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.

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.

7.4 Periodicals and web sites

International Web site :
http://en.wikipedia.org/wiki/List_of_human_parasitic_diseases
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

9-we certified that all of the information required to deliver this course is contained in the above specifications and will be implemented

Course coordinator name: Prof.Dr. Ahmed Ali Othman

Signature ……Date…/../2019

Head of department name: Prof.Dr. Howaida Ismaeel
Prosignature……Date **../../2019**