COURSE SPECIFICATION

(Medical Parasitology PAR 5٠٨)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Medical Parasitology (PAR508)
(2) Department offering the programme:	Medical Parasitology Department
(3) Department responsible for teaching the course:	Medical Parasitology Department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	**9-5-2016**
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Medical Parasitology
(8) Course code:	**(PAR 508)**
(9) Total teaching hours:	Lectures 195-300 Practical
(10) Credits hours	13 hours (lectures)- 10 hours (practical)

(B) Professional information

(1)Program Aims:

This program is designed to provide candidates with the following:

1. Knowledge about parasites of medical significance and formulate reasoned diagnosis of parasitic diseases.
2. Information as regard the parasite biology, life cycles, Host-Parasite relationship, environmental and host factors regulating parasitic diseases.
3. Recognition of the transmission patterns of parasites as an essential prerequisite for the development of effective control program.
4. Teach the student how to describe the pathogenic potential, pathogenesis, clinical picture and complications of parasitic organisms.

(2)Intended Learning Outcomes (ILOs):

A- Knowledge and Understanding: the course enalbles graduates to:

A1. Describe the morphological characteristics of classes of parasites.

Helminthology: Trematodes, Cestodes and Nematodes.

Protozology: Pseudopodes, Flagellates, Ciliates, Apicomplexa.

Entomology: Insect, Crustacea, Arachinida

A2. Recognize Environmental factors determining distribution of parasitic diseases

A3. Describe life cycle, method of transmission, habitat, infective and diagnostic stages of parasites

A4. Identify host- parasite relationship and how parasites harm their hosts pathologically.

A5. Explain management of diseases caused by parasites.

- Clinical presentation, different methods for diagnosis.
- Strategies for prevention and control.

A6. Explain host parasite interaction in opportunistic, nosocomial and zoonotic infections.

-Causes, predisposing factors, clinical presentation, diagnosis and control.

B– Intellectual skills

The Postgraduate Degree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

B1. Analyze clinical and investigational data to develop skill of logic reasoning for clinical problem solving.

B2. Recommend methods for diagnosis of different parasitic problems.

B3. Select the most appropriate tool to the identification of the causative organism.

B4. Evaluate according to evidence the causal relationship of microbes and diseases.

B5. Design guidelines for a control program for parasitic diseases.

C– Professional/practical skills :

By the end of the course, candidates will acquire the following essential skills:

C1. Identify parasites, life cycle stages and parasitic sections.

-Utilize perfectly different magnifications especially oil immersion lens for parasites identification.

C2. Prepare mounted slides and identify their contents using microscope.

C3. Perform a range of appropriate techniques in the laboratory used for blood, stool, soil and urine analysis (concentration, staining).

C4. Diagnose different parasitic stages that may be recovered from stool, soil and urine samples.

C5. Quantify different parasitic stages recovered from different samples.

C6. Mount successfully parasites, different stages and parts of medically important arthropods.

C7. Practice a range of techniques currently used in immuno-parasitology. (ELISA, IHA).

C8. Implement the quality assurance roles during examination of different samples e.g. blood, stool, soil, urine.

C9. Report correctly on the results of different parasitological diagnostic methods.

D- Communication & Transferable skills

The Postgraduate Degree provides the opportunity to demonstrate the following transferable skills:

D1. Establish a concise scientific activity according to standard scientific thinking and integrity.

- Review literature on a research topic.
- Retrieve recent data from web sites.
- Manage time efficiently.

D2. Work productively in a team.

- Communicate effectively and respectively with colleagues, supervisors and staff members

D3. Able to react positively with health care professionals, the national campaigns and health authorities which are conducted to infection control practice.

(3)Curriculum structure and contents: Compulsory course, medical parasitology

a- Module 1:

Subjects	**Lectures 7 hours/week**
Helminthology &Malacology	**Total: 105 hours**
Trematodes **Subclass Digenea** -Introduction &General morphology &F. Fasciolidae -F.Schistosomatidae -F. Heterophyidae &Opisthorchiidae -F.Echinostomatidae -F. Plagiorchiidae -F.Paramphistomatidae &Clinostomatoidea &Diplostomatidae. -General Malacology -Host finding	25 hours
Cestodes - Introduction &General morphology -SF. Bothriocephaloidea -F. Taeniidae F. Anoplocephalidae &Davaneidae&Linstowiidae &other non-human cestodes -F..Hymenolepididae&Dilepididae	35 hours

Nematodes - Introduction &General morphology -Order Enoplida -Order Oxyurida &Ascaridida -Order Rhabditida SF. Ancylostomatoidea&Strongyloidea -SF Trichostrongyloidea &Metastrongyloidea -SF. Dracunculoidea & Filarioidea -Suborder Spirurina -Larva migrans -Acanthocephala &leeches -Tongue worms	45 hours

a- Module 2:

Subjects	**Lectures** **6 hours/week**
Total: 90 hours	
Entomology -Introduction &General morphology -Pseudo-mosquito &Tabanidae -Flies &Myiasis -Fleas &lice -Bugs -Ticks -Mites. -Coleoptera -Hymenoptera -Lepidoptera -Scorpion & Spiders -Crustacea Control of arthropods	48 hours
Protozology	36 hours
-Introduction -Parasitic amoeba -Free living amoeba -Luminal flagellates -Hemosomatic flagellates -Toxoplasma	

-Intestinal coccidian (human & non-human) -Malaria -Babesia & other Apicomplexa -Ciliates -biology of protozoa	
Nosocomial &Zoonotic diseases	6 hours

Practical (300 hours)

Subject	**Teaching hours**
-Identification of parasites, life cycle stages and parasitic sections.	80
-Preparation of mounted slides (stool, urine, blood, ascetic fluid).	70
- Concentration of stool by sedimentation and flotation methods.	30
-Quantification of different parasitic stages recovered from different samples.	20
-Mounting parasites, different stages and parts of medically important arthropods.	50
- ELISA, IHA testing.	50
Total	**300 hours**

(4) Teaching methods:

4.1. Lectures

4.2. Power point presentation

4.3. Essay discussion

4.4. Seminar one hour duration done every 4 weeks about the recent advances in this field.

4.5. Practical classes

(5) Assessment methods:

Written exam for assessment of knowledge and intellectual ILOs

MCQ for assessment of knowledge and intellectual ILOs

Oral for assessment of knowledge, intellectual and transferable ILOs

OSPE for assessment of knowledge, intellectual, practical and transferable ILOs

Percentage of each Assessment to the total mark:

Other assessment without marks: seminars as described above included in the log book.

Percentage of each assessment to the total mark

Tools	Marks
Continuous assessment (MCQ)	72
Written exam	288
Oral exam	120
OSPE Practical exam	120
Total	600

(6)References of the course

6,1, clinical parasitology (Beaver & Jung)

6,2, Foundation of parasitology.

6.3, Pathology of protozoal and helminthic diseases (Marcial –Rojas)

Facilities and resources mandatory for course completion:

Lecture halls and data show.

Course coordinator: Dr. Manar Sobh Azab

Head of the department: Dr. **Hala Ahmed El Nahas**

Date. /6/2016