



## COURSE SPECIFICATION

### **Immunology of Parasitic Diseases**

Faculty of Medicine– Mansoura University

#### (A) Administrative information

(1) Programme offering the course.	Postgraduate Doctorate degree of Medical Parasitology
(2) Department offering the programme.	Department of Medical Parasitology
(3) Department responsible for teaching the course.	Department of Medical Parasitology
(4) Part of the programme.	First part
(5) Date of approval by the Department's council	5-9-2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title.	Immunology of Parasitic Diseases
(8) Course code.	(PAR 608 IPD)
(9) Total teaching hours.	30hours / 15weeks
(10) Credit hours	2 hours

## **(B) Professional information**

### **(1) Course Aims.**

The broad aims of the course are as follows.

1. Provide the student the knowledge about recent immunological principles, and their possible applications in Parasitology field.
2. Enable the student to understand the innate and adaptive (Humoral vs. Cell-mediated) immune responses to parasites of clinical importance.

### **(2) Intended Learning Outcomes (ILOs).**

On successful completion of the course, the candidate will be able to:

#### **A. Knowledge and Understanding**

- a1.** Discuss the recent principles of immunology, and the new immunological diagnostic tools.
- a2.** Explain host-parasite interactions, how parasites harm their hosts and the major immunological consequences underlying this process.
- a3.** Explore immune responses to different parasitic diseases.
- a4.** Recognize new control methods to soil-transmitted helminth infection.
- a5.** Analyze the effect of gender and sex hormones on immunity and outcomes of protozoal infection.

#### **B. Intellectual skills**

- B1.** Select proper immunological diagnostic tools to justify their use, advantage and indications in the field of Parasitology.

## (2) Course content.

Subjects	Lectures	Total Teaching Hours
- Recent immunology principles	2 x2	4 hours
<b>A) Helminths</b>		12 hours
- Immunity against schistosomiasis	2 x2	
- Immunity and new control methods to soil-transmitted helminth infections	2 x2	
- Innate and adaptive immunity in <i>Fasciola</i> infection	1 x2	
- Immunity to lymphatic filariasis	1 x2	
<b>B) Protozoa</b>	7 x2	14hours
- Host immunity against malaria		
- Immunobiology of the innate response to <i>Toxoplasma gondii</i>		
- Host-parasite interactions in <i>Giardia</i> infection		
- <i>Giardia</i> immunity: an update		
- Immunity against <i>Leishmania</i>		
- Immunity against Chagas' disease		
- Sex-associated hormones and immunity to protozoa		

## (3) Teaching methods.

- 4.1. Lectures.
- 4.2. Power point presentation.
- 4.3. Essay and Literature review discussion.
- 4.4. Seminar one hour/ 4 weeks to identify the advances in parasitic immunology.

## (4) Assessment methods.

- 5.1. Multiple choice questions (MCQ) for assessment of knowledge and intellectual ILOS (at the end of first semester).

5.2. Written exam for assessment of knowledge and intellectual ILOS (at the end of first semester).

Percentage of each assessment to the total mark.

Tools	Marks	Percentage of the total mark
Continuous assessment (MCQ)	20	20
Written exam	80	80
<b>Total</b>	<b>100</b>	

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

### References of the course.

#### **Text books (available at the library):**

- Immunity to parasitic infections, Tracy JL, 2012.
- Principles and Practice of Clinical Parasitology, Gillespie SH and Pearson RD. John Wiley and Sons; LTD. 2001.

#### **Periodicals:**

- Journal of Immunology.
- Clinical Microbiology Review.
- Clinical and Experimental Immunology.
- Clinical Review.
- Parasite Immunology.
- Journal of Infection and Immunity.
- Advances in Parasitology.
- Trends in Parasitology.
- PLoS Neglected Tropical Diseases.
- PLoS Ones.
- International Journal of Parasitology.
- Acta Tropica.
- Parasitology Research.
- Journal of Parasitology Research.
- Parasitology.
- Experimental Parasitology.
- Journal of Parasitology.
- Annals of Tropical Medicine and Parasitology.
- Malaria Journal.
- American Journal of Tropical Medicine and Hygiene.
- Journal of Infectious Diseases.

**Web sites:**

- <http://www.ncbi.nlm.nih.gov/pubmed/>
- <http://www.ncbi.nlm.nih.gov/gquery/>

**(7) Facilities and resources mandatory for course completion.**

Lecture halls and data show.

**Course coordinator: Prof. Samar Nagah El-Beshbishi**

**Head of the department: Prof. Hala Ahmed El-Nahas**

**Date: -----**