



Medical Parasitology Department Program Specification- MSc

# **PROGRAM SPECIFICATION**

Program Title:

# Master Degree of Medical Parasitology

Code: PAPA





# **Program Specification**

# A- Basic Information:

- **Program Title:** Master Degree of Medical Parasitology.

- Program Type: Single  $\sqrt{\square}$  Double  $\square$  Multiple  $\square$ 

- **Department (s):** Medical Parasitology Department.
- Coordinator: Assist. Prof. Ola Ali Ismail.
- External Evaluator(s) : Prof. Dr. Mohammed Saad Younis.
- Last date of program specifications approval: The bylaws of the Master program in Medical Parasitology in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities in 2009.
- Date of specification revision approval: January 2017
- Number of credit points for this degree: 120 CP.

# **B- Professional Information:**

## 1- Program Aims:

This program aims at providing core training in the theoretical and practical aspects of medical parasitology, covering the protozoan and metazoan parasites of human and the vectors which transmit them. The program is aiming at providing students with specialized skills to pursue a career in research, control and/or teaching related to medical parasitology.

# 2. Intended Learning Outcomes (ILOs) of the program:

#### a. Knowledge and Understanding:

By the end of this program, participants should be able to:

a1 Identify different classes of medically important parasites and their biological background.





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- a2 Identify the biology and biochemical characteristics of parasites.
- a3 Describe recent theories or strategies as regards the pathogenesis and subsequent clinical manifestations of different parasitic diseases.
- a4 Define the recent immunological responses and the possible dynamics of immune protective mechanisms.
- a5 Identify the host parasite interaction and different outcomes (e.g. histopathological, biochemical, immunological, molecular or genetic.....etc)
- a6 Describe the key aspects of vector behaviour, vector ecology and vector-parasite interactions and demonstrate an understanding of how these features impact the epidemiology and control of vectorborne
- a7 Describe the methods and concepts of incubation periods, epidemic patterns, modes of transmission, transmission dynamics, measures of infectiousness, and sero-epidemiology.
- a8 Identify the clinical research ethics, design principles, implementation and interpretation.
- a9 Identify different traditional and advanced diagnostic procedures and its reflection on the environment.
- a10 Identify the preventive and control measures of parasitic infections.
- a11 Recognize the principles of quality assurance in relation to medical parasitology aspect of professional practice, related to the medical parasitology
- a12 Recognize the basis of ethical and legal aspect of professional practice, related to the medical parasitology

#### b. Intellectual Skills:

By the end of this program, participants should be able to:

- b1 Integrate, analyze and evaluate knowledge and available data to solve problems related to medical parasitology
- b2 Distinguish the recent scientific data related to biological aspect of the parasites.
- b3 Distinguish the different immune responses; whether balanced or modulated comparing the mechanisms used by parasites to evade the immune response.
- b4 Interpret a laboratory report and recommend an appropriate diagnostic procedure for each parasitic infection.
- b5 Critically analyze the scientific information and findings.
- b6 Explain the effective consultation in diagnostic parasitology.





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- b7 Design a laboratory or field based research project.
- b8 Select the appropriate procedure during field and applied diagnostic parasitology.
- b9 Apply relevant research skills, critically analyze and interpret data, and work with minimal supervision.

#### c. Professional and Practical Skills:

By the end of this program, participants should be able to:

- c1 Practice specialized skills acquired through taking modules on: advanced diagnostic, molecular, immunological, genetic, chemotherapeutic, ecological and/or control aspects of parasitic infections.
- c2 Develop effective strategies for identification of gaps in clinical diagnostic parasitology.
- c3 Assess parasitologists as well as laboratory personnel.
- c4 Write professional parasitology reports.
- c5 Perform appropriate statistics and implement quality assurance procedures as required in applied diagnostic parasitology and research works.
- c6 Use proficiency programs to improve parasitology laboratory practices.
- c7 Demonstrate proficiency in presenting findings from appropriate peer-reviewed journals.

#### d- General and Transferable Skills:

By the end of the program, participants should be able to:

- d1 Choose effective modes of communication (listening, nonverbal, explanatory, questioning) and mechanisms of communication (face-to-face, telephone, e-mail, written) as appropriate.
- d2 Communicate in an appropriate manner to the referring clinical personnel when interpretation of a laboratory assay reveals an urgent and critical finding .
- d3 Conduct individual focused, clear and concise consultations and presentations at multidisciplinary conferences.
- d4 Interact with others without discriminating on the basis of religious, ethnic, sexual, or educational differences.
- d5 Demonstrate positive work habits including punctuality, dependability and professional appearance.
- d6 Collaborate effectively in teams to accomplish the duties required to gain their skills.





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- d7 Demonstrate managerial skills.
- d8 Apply presentation skills to present their performance and/or view.
- d9 Demonstrate effective computer skills.
- d10 Perform self and peer evaluation
- d11 Manage time and resources
- d12 Adopt lifelong learning
- d13 Use different resources including information technology to obtain information and improve professional practice

## 3- Academic Standards:

#### External References for Standards (Benchmarks):

 The standards of the National Authority of Quality Assurance and Accreditation in Education (NAQAAE).Academic Reference Standards for postgraduates. Website: <u>www.naqaae.org</u>.

# 4. Curriculum Structure and Contents:

#### 4a- Program duration:

The program lasts for a minimum of 2 academic years and maximum 5 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February 7<sup>th</sup>, 2016.

#### 4b- Program structure:

#### Master Program Credit points (CP) structure:

Total needed credit points for getting master degree 120 CP. The program consists of First part **30 CP**, Thesis **30 CP**, and Second part **60 CP**:

- 1. <u>The first part of the program:</u> 30 CP, its duration (15 weeks) for one academic semester, it includes:
  - a. A course in Research Methodology planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes **4 CP**.





- b. A courses in Research ethics planned and held in the Forensic and Toxicology Department of the Faculty of Medicine, Suez Canal University. This part includes **2 CP**.
- c. One course from 4 courses of basic sciences (microbiology or pathology or histology or biochemistry).
  This part includes 22CP.
- d. One elective course (this part includes 2CP): the students should select one elective among four courses:

Course	Teaching department	
Evidence Based medicine	(Community Department).	
Scientific Writing	(Medical Education Department).	
Quality in Medical Education	(Medical Education Department).	
Infection Control	(Microbiology Department).	
Critical Appraisal	(Community Department).	
Communication Skills	(Medical Education Department).	
	Evidence Based medicine      Scientific Writing      Quality in Medical Education      Infection Control      Critical Appraisal	

- 2. <u>Master thesis:</u> 30 CP, not included in the total marks for master degree, the candidate has the right to register the thesis protocol after 6 months from the degree registration. The thesis defense is allowed after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.
- 3. <u>The second part of the program</u>: 60 CP, its duration (45 weeks) for 3 consecutive academic semesters. The second part comprises the specialized courses in medical parasitology, planned and held in the Medical Parasitology Department. This part lasts for 1.5 years ending by written and practical exams.

**4bi- No. of hours per week:** 2 CP / week which equivalent 50 hours/ week, including lectures, tutorials, self-learning and hands-on training.

**4bii- No. of credit Points:** the Master program is 120 credit points every credit point include 2 working hour (30% = 7 hours for face to face learning activities, and 70% =18 hours for self-learning activities).





# 5- Program Courses:

# 5.1- Level/Year of Program: 1st part MSc:

Courses		Assessment						
			Written Exam			Τ		
Code No.	Course Title	No. of Credit P	No of Papers	Duration	Marks	Oral Exam	Practical or clinical Exam	Total Marks
RB	Research methodology and Biostatistics	4	1	2 hours	80			80
RE	Research Ethics	2	1	1 hour	40			40
PAPA01 or	Basics Sciences: Microbiology/	22	1	3 hours	260	80	100	440
PAPA02 or	Pathology/							
PAPA03	Histology/							
or PAPA04	Biochemistry							
E	Elective Course*	2	1	1 hour	40			40
Total	credit points		30 credit points					600
								marks**

\*\*Every credit point equal 20 marks





#### 5.2- Level/Year of Programme: 2<sup>nd</sup> part MSc:

#### a. Compulsory

Courses			Assessment					
Code				Written Exam			Practical	Continuou
No.		Credit points	No of papers	Duration	Marks	exam	or clinical Exam	assessment *(Portfolio)
PAPA05	Theortical Course in Medical Parasitology	30	2	3 hours for paper	165 for paper	110	330	330
	Practical course in Medical Parasitology	25						
	***Scientific activities	5 (not included in the total marks)						
	Total	60	credit poir	its		**11	00 score	1

\* Portfolio scores distributed in the different parts of the portfolio and its total score included among the total mark of the second part.

\*\* Every credit point equal 20 marks.

\*\*\*Scientific activities are not included in the total marks.

5.3 Thesis: A faculty senior & junior supervisor from the staff members are nominated by the department council to prepare a proposal of the thesis protocol after the selection of a subject that is complementary to the research plans of the department. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors into a research project. The research protocol is then peer reviewed by two different staff members nominated by the Head of the department who share their ideas and comments with the supervisors to reach to the final form. The research protocol is discussed then openly in one of the department councils to be approved and diverted to





the faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approvals of the research protocol are then issued by the committee of post graduate studies, the Faculty and University Council to be registered. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.

N.B. Thesis represents 30 credit points not included in the total mark for master degree.

# 6- Program Admission Requirements:

- The program accepts candidates with Bachelor degree in Medicine and Surgery with minimum good grade & very good.
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

# 7- Student Assessment Methods:

7.1 Written (MEQ)	to assess the cognitive domain.
7.2 MCQs	to assess the cognitive domain
7.3 Oral Viva Cards	to assess higher cognitive and attitude domains.
7.3 Observations	to assess practical and presentation skills.
7.4 Portfolio	to assess the cognitive, psychomotor and the affective domains.





# 8- Weighting of Assessments:

Type of exam					
First part (30 credit points= 600 mark)	First part (30 credit points= 600 mark)				
– Written exam	420				
- Oral and practical exam	180				
Total	600				
	ing 5 credit points not included in the total marks 00 mark)				
– Oral exam	110				
- Practical exam	330				
– Written exam	330				
– Portfolio	330				
Total	1100				

Total of the Master degree

1700

# 9- Regulations for Progression and Program Completion:

The regulations for program completion follow the regulations of Master degree of medical parasitology in the Faculty of Medicine, Suez Canal University approved by the Supreme Council of Universities.

## First part (40%)

Passing level 60% of total marks of the exam.

At least 50% passing level of the total written exam marks.

## Second part (60%)

Passing level 60% of total marks of the exam.

Passing level 60% is prerequisite for MSC degree.

## Thesis/Assay





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Passing thesis defense is perquisite for getting MSc. Degree.

# 10-Evaluation of Program Intended Learning Outcomes (ILOs):

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni	Self-administered questionnaires	Comprehensive sample
3- Stakeholders	Self-administered questionnaires	Random sample
4-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
5- Other		

Head of Medical Parasitology Department

Prof. Dr. Khaled El- Shewy

Date: January 2017