

## Islamic Republic of Iran

### Ministry of Health and Medical Education Deputy Ministry of Education

## Medical Parasitology Master of Science (MSc)

#### Total Course Credits

- Core: 21
- Non-core (Elective): 3
- Thesis: 8
- Duration: 2-2.5 years

#### Program Description

The field of Medical Parasitology is a branch of medical sciences dealing with the organisms hold on human body as their host. As parasites are common pathogens causing disease, studying, diagnosing, and seeking ways to control them is very important. This field provides an opportunity for the graduates to learn more about life cycle of parasites, the diseases they produce and the epidemiology, transmission routs, pathogenesis, signs and symptoms and, diagnosis of such diseases, and the prevention and other control measures. This will be achieved through a matrix of skills acquired from theoretical and practical courses with emphasis on laboratory activities. The history of parasitology goes back to about 1000 years ago when Avicenna described some protozoan disease with special symptoms. The main mission of the program is to train Medical Parasitologists who can work in such areas as diagnosing the agent of parasitic-infectious diseases, control strategies, research, and education.

#### Admission Requirements

A bachelor of science degree (BSc) in one of the fields of Parasitology, Entomology, Microbiology, Immunology, Laboratory Sciences, Veterinary Laboratory Sciences, General Biology and Biology subfields (Animal Sciences, Cellular Sciences, Molecular Sciences and Microbiology) and Genetics

#### Expected Competencies at the End of the Program

##### General Competencies\*

##### Specific Competencies and Skills

At the end of the program learners will be competent in the following skills:

- Participating in control and preventive programs of parasitic disease
- Doing parasitic exams
- Reporting parasitic exams in clinical laboratory
- Preparing parasitic samples

##### Educational Strategies, Methods and Techniques\*



### **Student Assessment (Types and Methods)**

- Formative (quizzes and midterm Exam)
- Summative (Final Exam)
- Oral and written exams, observation, clinical competence assessments
- (OSCE, OSLE, OSFE, DOPS, 360 degree evaluation competency)
- Portfolio assessment: Logbook, test results, reports, articles, certificates, promotions, etc.

### **Ethical Considerations**

\*Note: The related document(s) can be found at <http://hcmep.behdasht.gov.ir/>



## Table of the Courses

**Table 1. Compensatory Courses**

Title of the Courses	Code of the Course	Theoretical		Practical		Internship		Total		Prerequisite or Concurrent Courses
		Credit	Teaching hours	Credit	Teaching hours	Credit	Teaching hours	Credit	Teaching hours	
01	Lab. Practice in Parasitological Laboratories	-	-	-	-	1	51	1	51	
02	Introductory Medical Protozoology	1	17	1	34	-	-	2	51	
03	Introductory Medical Helminthology	1	17	1	34	-	-	2	51	
04	Medical Entomology	1	17	1	34	-	-	2	51	
05	Biostatistics Methodology	2	34	-	-	-	-	2	34	
06	Introductory Bacteriology	1	17	1	34	-	-	2	51	
07	Introductory Medical Mycology	1	17	1	34	-	-	2	51	
08	Immunology I	2	34	-	-	-	-	2	34	
09	Introductory Hematology	1	17	1	34	-	-	2	51	
10	Clinical Biochemistry	1	17	1	34	-	-	2	51	
11	General Genetics	2	34	-	-	-	-	2	34	
12	Molecular & Cellular Biology	2	34	-	-	-	-	2	34	
13	Principles of Health Services	2	34	-	-	-	-	2	34	
14	Human Histology	1	17	1	34	-	-	2	51	
15	Medical Information Systems*	0.5	9	0.5	17	-	-	1	26	
<b>Total</b>		<b>18.5</b>	<b>315</b>	<b>8.5</b>	<b>289</b>	<b>1</b>	<b>51</b>	<b>28</b>	<b>655</b>	

Student can pass a maximum of 12 units of the compensatory courses (Table A) as assigned by the Department of Parasitology and approval of the University Postgraduate Committee.



\* Passing this compensatory course is necessary for all students.



**Table 2. Core Courses**

Title of the Course	Code of the Course	Theoretical		Practical		Internship		Total		Prerequisite or Concurrent Courses
		Credit	Teaching hours	Credit	Teaching hours	Credit	Teaching hours	Credit	Teaching hours	
16	Immunology 2	1	17	1	34	-	-	2	51	08,10
17	Principles of Epidemiology	2	34	-	-	-	-	2	34	
18	Laboratory Animals & Application in Parasitology	0.5	9	0.5	17	-	-	1	26	
19	Protozoology (1)	2	34	1	34	-	-	3	68	02
20	Helminthology (1)	2	34	1	34	-	-	3	68	03
21	Protozoology (2)	2	34	1	34	-	-	3	68	02
22	Helminthology (2)	2	34	1	34	-	-	3	68	03
23	Applied Biostatistics and Application of Computer in Analysis of Health Data	1.5	26	0.5	17	-	-	2	43	05,15
24	Research Methodology in Health Sciences	1	17	1	34	-	-	2	51	23
25	Internship	-	-	-	-	2	136	2	136	19,20,21,22
26	Seminar	1	-	-	-	-	-	1	-	
	<b>Total</b>	<b>15</b>	<b>239</b>	<b>7</b>	<b>238</b>	<b>2</b>	<b>136</b>	<b>24</b>	<b>613</b>	

**Thesis: 8 Credits**

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