

Republic of Yemen
Ministry of Higher Education & Scientific Research
21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIED
SCIENCES



Faculty of Laboratory medicine..

Department of MICROBIOLOGY & IMMUNOLOGY

Course Specification of Advanced Medical Parasitology

Course No. (03.12. 320)

2020/2021

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi

I. Course Identification and General Information:				
1	Course Title:	Advanced Medical Parasitology		
2	Course Code & Number:	03.12. 320		
3	Credit Hours:	Theory Hours		
		Lecture	Exercise	Practical
		2	0	
4	Study Level/ Semester at which this Course is offered:	1st Level / 1st Semester		
5	Pre –Requisite (if any):	Advanced Microbiology, Advanced Immunology		
6	Co –Requisite (if any):	None		
7	Program (s) in which the Course is Offered:	Master degeee of microbiology & immunology		
8	Language of Teaching the Course:	English		
9	Study System:	semester		
10	Mode of Delivery:	rgular		
11	Location of Teaching the Course:	University Campus		
12	Prepared by:	Dr. ----		
13	Date of Approval:			

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi

II. Course Description:

This course is an advanced study of the biology, life cycles, pathogenesis, diagnosis, and treatment of parasitic infections. The course is designed for students who are interested in pursuing a career in research, control, or teaching related to medical parasitology.

III. Course objective:

- Identify and classify parasites using morphological and microscopic techniques
- Describe the life cycles of parasites and the mechanisms by which they are transmitted
- Discuss the pathogenesis of parasitic infections and the clinical manifestations of these infections
- Interpret laboratory results for parasitic infections
- Develop and implement treatment plans for parasitic infections
- Conduct research on parasitic infections
- Communicate effectively about parasitic infections to patients, colleagues, and the public
- Identify parasites under the microscope
- Interpret laboratory results for parasitic infections
- Develop and implement treatment plans for parasitic infections

demonstrate detailed knowledge and understanding of the biology and strategies for control of the vectors and intermediate hosts of human parasites; (iii) carry out practical laboratory identification of the various parasite stages both free and in tissues and diagnose infections; (iv) demonstrate specialised skills acquired through taking Modules on: advanced diagnostic, molecular, immunological, genetic, chemotherapeutic, ecological and/or control aspects of the subject; (v) demonstrate the ability to design a laboratory or field based research project, apply relevant research skills, critically analyse and interpret data, and work with minimal supervision;
Explain the host defense mechanisms against parasitic infections and mechanisms of co-infections

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi

III. Alignment Course Intended Learning Outcomes with program outcomes		
III. Course Intended Learning Outcomes (CILOs)		Referenced PILOs
A. Knowledge and Understanding: Upon successful completion of the course, students will be able to:		
a1	Demonstrate detailed knowledge and understanding of the biology, life cycles, pathogenesis, diagnosis of parasitic infections in humans and their relevance for human health and strategies for control;	A4
a2	identify morphological, biological and epidemiological characteristics of the main parasites and microorganisms involved in human health. Associate the characteristics of major infectious diseases caused by parasites with prevention and possible treatments	A1
B. Intellectual Skills: Upon successful completion of the course, students will be able to:		
b1	Explain the host defense mechanisms against parasitic infections and mechanisms of co-infections	B1
D. Transferable Skills: Upon successful completion of the course, students will be able to:		
d1	Communicate with patients and their families to avoid further exposure to parasites	D1,D3

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi

IV. Alignment Course Intended Learning Outcomes with Teaching Strategies and Assessment methods :			
(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1	Discuss the relationship between each parasite and its host	Lecture	Exam
(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1	Investigate the different ways by which the parasites damage their hosts and the response of the host		Exam, seminars
C Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1	Communicate with patients and their families to avoid further exposure to parasites		Seminar, Discussion

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi

V. Course Content:					
A – Theoretical Aspect:					
N O.	Units/Topics List	Sub Topics List	Number of Weeks	contact hours	Learning Outcomes (CILOs)
1	Introduction to medical parasitology	Basic concepts and definitions, history of medical parasitology, importance of medical parasitology in public health, and overview of the course.	1	1	a1 ,a2,d1
2	Protozoan parasites	Classification, morphology, life cycle, pathogenesis, and clinical manifestations of protozoan parasites such as Plasmodium, Trypanosoma, Leishmania, and Entamoeba.	1	2	A1 ,a2
3	Helminth parasites	3. Helminth Parasites: Classification, morphology, life cycle, pathogenesis, and clinical manifestations of helminth parasites such as nematodes, cestodes, and trematodes.	1	2	a1 ,a2,d1
4	Arthropod parasites	4. Arthropod Parasites: Classification, morphology, life cycle, pathogenesis, and clinical manifestations of arthropod parasites such as ticks, mites, and lice.	1	2	a1 ,a2,d1

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtessam Al-Zabedi

5	Pathogenesis and clinical manifestations of parasitic infections	5. Pathogenesis and Clinical Manifestations of Parasitic Infections: Mechanisms of pathogenesis, immune responses, and clinical manifestations of parasitic infections.	1	2	a1 ,a2
6	Laboratory diagnosis of parasitic infections	Laboratory Diagnosis of Parasitic Infections: Microscopic, serological, immunological, and molecular methods used for the diagnosis of parasitic infections.	1	2	a1 ,a2
7	Antiparasitic drugs and treatment strategies	Mechanisms of action, pharmacokinetics, and side effects of antiparasitic drugs, and different treatment strategies for parasitic infections.	1	2	a1 ,a2
8	Prevention and control of parasitic infections	Strategies for the prevention and control of parasitic infections, including vector control, sanitation and hygiene, and vaccination.	1	2	a1 ,a2
8	Emerging and reemerging parasitic infections	Recent trends in the epidemiology of parasitic infections, including emerging and reemerging diseases such as Zika virus, Chagas disease, and	1	2	a1 ,a2

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtessam Al-Zabedi

		schistosomiasis.			
9	Research and developments in medical parasitology	Current research and developments in the field of medical parasitology, including new diagnostic methods, drug development, and vaccine research.	1	2	a1 ,a2
16	FINAL THEORTICAL				
			16	32	

V. Teaching Strategies of the Course:

1-	Lectures
2	seminars
3	Discussion

VI. Assessment Methods of the Course:

No	Assessment
1	Written Exams (Short Essays) and Quizzes
2	Written Exams(MCQ)
3	Structured Oral Exams
5	Student presentation

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtessam Al-Zabedi

VII. Assignments:

No.	Assessment Method	Week Due	Mark	Aligned Course Learning Outcomes	
1	Midterm Exam	7	30	30%	
3	Final Exam	14	70	70%	
	Total		100		100%

X. Learning Resources:

· Written in the following order: (Author - Year of publication - Title - Edition - Place of publication - Publisher).

1- Required Textbook(s) (maximum two).

- 1- Bogitsh B.J., Carter C.E., Oeltmann T.N. (eds.) (2005). Human Parasitology, Elsevier Academic Press.
- 2- Mandal F.B. (ed.) (2011). Human Parasitology, PHI.

2- Essential References.

- 1- Cox F.E.G. (ed.) (2009). Modern Parasitology: A Text Book of Parasitology, Blackwell Science Ltd.
- 2-

XI. Course Policies:

1	Class Attendance:
	-If the student dose not attend for more than 6 times, the student will be obligated to withdrew from the course
2	Tardy:
	- If the student is late for the lectures for the 2nd time, he will not be allowed to attend this lecture
3	Exam Attendance/Punctuality:
	- If any student does not attend the exam in the scheduled day, it will consider as a fail for him

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi



4	Assignments & Projects:
	- Any student dose not submithis assignment,he will lose its grade.
5	Cheating: - ANY STUDENT TRY TO CHEAT IN ANY QUIZ OR EXAM, HE WILL NOT BE ALLOWED TO CONTINUE THE EXAM AND IT WILL CONSIDER AS A FAIL FOR HIM
6	Plagiarism: - If any student try to plagiarism another student identity, both of them will be convertedto investigation and they might be expelled from the program
7	Other policies: - Undelivered requirement will not be marked - You should leave your dental Chair as clean as possible

Prepared by:	Reviewed by:	Head of the Department:	Vice Dean for Quality affairs	Dean of College:
Associate Prof. Dr Rashad Ahmed Ali Abdulgani	Assistant Prof. Dr Ghamdan Al-Tahish	Dr\Gamil Taher Abdul Mughni	Dr\Gamil Taher Abdul Mughni	Associate Prof. Dr. Ebtesam Al-Zabedi