Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIEED

SCIENCES

Faculty of Laboratory medicine..

Department of PARASITOLOGY

Course Specification of Medical Helminthology
Course No. (03.04.344)

FACULTY OF LABORATORY MEDICINE

Council for Accreditation & Quality Assurance

Course number:

Course name : Medical Helminthology

I. Course Identification and General Information:						
1	**Course Title:**	Medical Helminthology				
2	**Course Code & Number:**	03.04.344				
3	**Credit Hours:**	**Theory Hours**				
		Lecture	**Exercise**	Practical	**Credit Hours**	
		2	0	2	3	
4	**Study Level/ Semester at which this Course is offered:**	2nd Level / 1st Semester				
5	**Pre –Requisite (if any):**	General Biology				
6	**Co –Requisite (if any):**	None				
7	**Program (s) in which the Course is Offered:**	Faculty of Laboratory medicine				
8	**Language of Teaching the Course:**	English				
9	**Study System:**	semester				
10	**Mode of Delivery:**	Presentations and exercises				
11	**Location of Teaching the Course:**	University Campus				
12	**Prepared by:**	Dr / Ali gamali AL-Hawri				
13	**Date of Approval:**	2022-2023				

II. Course Description:
This course covering medical Helminthes which infect humans and prevalent in the regions, particularly in Yemen.. The basic characteristic of these medical Helminthes, as well as the clinical manifestations of the diseases they cause, will be discussed, Life cycles, morphological features, host-parasite interactions, geographical distribution, reservoir hosts, methods of transmission and control, pathology, immunological aspects and diagnosis will be covered.

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	**Describe** the morphology, life cycle, pathogenesis, clinical signs and symptoms, complications, treatment, mention the methods of prevention and control of infection on individual and community levels of parasitic infections	**A1**
B. Intellectual Skills: ***Upon successful completion of the course, students will be able to:***		
b1	**Interpret** specific symptoms and signs caused by certain parasitic infection	**B1**
C. Professional and Practical Skills: ***Upon successful completion of the course, students will be able to:***		
c1	**Examine** and identify the microscopic morphology of parasites and their larval stages in fixed stained smears , grossly parasites and their stages and parasitic lesions in different organs	**C1**
D. Transferable Skills: ***Upon successful completion of the course, students will be able to:***		
d1	Use information technology in laboratory medicine and scientific research.	**D1**
d2	Demonstrate responsibility for professional Laboratory Medicine practice including the essential values of ethics, self-respect, honesty, autonomy, humanity and social justice	**D4**

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	**Describe** the prevalence, geographical distribution, mode of infection, habitat, life cycle, pathogenesis, laboratory diagnosis, prevention and control of infection on individual and community	Lectures Practical session	Exam Practical Exams
(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Lectures Laboratory practical	Assessment Strategies
b1	Interpret specific symptoms and signs caused by certain parasitic infection	Lectures	Exam
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
c1	**Examine** and identify the microscopic morphology of parasites and their larval stages in fixed stained smears , grossly parasites and their stages and parasitic lesions in different organs	Practical session	Practical Exams
(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:			
	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1	Use information technology in laboratory medicine and scientific research.	Practical session	Practical Exams
d2	Demonstrate responsibility for professional Laboratory Medicine practice including the essential values of ethics, self-respect, honesty, autonomy, humanity and social justice	Lectures Practical session	Exam Practical Exams

NO.	Units/Topics List	Number of Weeks	contact hours	Learning Outcomes (CILOs)
1	Introduction to **Trematodes (Flukes, intestinal, hepatic, pulmonary and blood)**	1	2	a 1,b1
2	Hepatic flukes	1	2	a 1,b1,c1
3	Intestinal & flukes	1	2	a 1,b 1
4	Blood flukes & snail intermediate host	1	2	a 1,b1,c1
5	Intestinal & flukes	1	2	a 1,b1,c1
6	Blood flukes & snail intermediate host	1	2	a 1,b1
7	**Introduction to cestodes (Tape worms)** and Pseudophyllidae	1	2	a 1,b1
8	MED TERM	1	1	
9	Taenia sp. & Cysticercosis	1	2	a 1,b1
10	Echinococcus & Hydatid	1	2	a 1, b1,d1
11	Dipyilidium & Hymenolepis	1	2	a 1, b1,d2
12	**Introduction to nematodes** & Ascaris	1	2	a 1, b1
13	Enterobius & Trichuris & Capillaria	1	2	a 1, b1
14	Trichinella & Strongyloides	1	2	a 1, b1
15	Hook worms	1	2	a 1, b1
16	FINAL THEORTICAL	1	2	a 1, b1,c1
		16	31	

B - Practical Aspect: (if any)				
Order	**Tasks/ Experiments**	**Number of Weeks**	**contact hours**	**Learning Outcomes**
1	Hepatic flukes(fasciola species)	**1**	**2**	**c 1,d1**
2	Blood flukes(schistosoms species)	**1**	**2**	**c 1,d2**
3	**Cestodes(tape-worm)**	**1**	**2**	**c 1,d1**
4	**Hymenolepias nana**	**1**	**2**	**c 1,d1**
5	**Systemic cestode(echinococcus granulosus)**	**1**	**2**	**c 1,d2**
6	**Nematode (round –worms) Ascaris lumbricoides**	**1**	**2**	**c 1,d1**
7	**Hook-worm(Ancylostoma duodenale)**	**1**	**2**	**c 1,d2**
8	**Trichuris trichiura**	**1**	**2**	**c 1**
9	**Enterobius vermicularis**	**1**	**2**	**c 1**
10	Strongyloides	**1**	**2**	**c 1**
11	**Final practical exam**	**1**	**2**	
Number of Weeks /and Units Per Semester		**11**	**22**	

V. Teaching Strategies of the Course:	
1-	Lectures
2-	Practical session

VI. Assessment Methods of the Course:	
No	**Assignment**
1	Written Exams (Short Essays) and Quizzes
2	Multiple Choice Questions (MCQ)
3	Practical Exams (PE)

VII. Assignments:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	**Midterm Exam**	8	20	20%	a1,b1 ,c1
2	**Practical exam**	12	30	30%	a1, ,b1, c1,d1,d2
3	**Final Exam**	16	50	50%	a1, ,b1, ,c1
	Total	100		100%	

IX. Learning Resources:

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

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

1-	Medical parasitology .11 Edition by peter J. Hotez, Willam C
2-	Medical parasitology, 4th Edition by dennis D. juranek and James W. Warren.

2- Essential References.

1-	Warren levinson,peter chin-honh,elizabethA.joyce,jesse Nussbaum and brain Schwartz,Review of medical microbiology and immunology,2018,15th edition,McGraw-Hill,ISBN:978-1-259-64449-8
2-	Bailey&Scott's Diagnosic microbiology 15th Edition patricia M. Till-February4,2021

3- Electronic Materials and Web Sites *etc*.

1-	Centers for disease control and prevention (CDC)
2-	World Health Organization (WHO)
3-	American Society Of Tropical Medicine and Hygiene (ASTMH)
4-	American society Of Parasitologist

XI. *Course Policies:*	
1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** -If the student dose not attend for more than 6 times, the student will be obligated to withdrew from the course
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration