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 protozoology
Course No. (03.04,346)

FACULTY OF LABORATORY MEDICINE

Council for Accreditation & Quality Assurance

Course number:

Course name Medical protozoology

I. Course Identification and General Information:					
1	Course Title:	Medical protozoology			
2	Course Code & Number:	03.04.346			
3	Credit Hours:	Theory Hours			
		Lecture	Exercise	Practical	Credit Hours
		2	0	2	3
4	Study Level/ Semester at which this Course is offered:	3rd Level / 1st Semester			
5	Pre –Requisite (if any):	None			
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			

A. II. Course Description:

This course covering protozoa which infect humans. The basic characteristic of these protozoa, 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, treatment 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 prevalence, geographical distribution, mode of infection, habitat, life cycle, pathogenesis, laboratory diagnosis, prevention and control of infection on individual and community	**A1**
	B. Intellectual Skills: ***Upon successful completion of the course, students will be able to:***	
b1	**Define** the different diagnostic techniques for detecting, preventive measures to avoid parasitic infections and treatment of each protozoal disease	B3
b2	**List** the different diagnostic techniques for detecting, preventive measures to avoid parasitic infections and treatment of each protozoal disease	B3
b3	**Interpret** the results of examination of parasitic specimens	B3
	C. Professional and Practical Skills: ***Upon successful completion of the course, students will be able to:***	
c1	**Apply** the measures adopted for control and eradication of common medically important protozoa found in Yemen.	**C1**
	D. Transferable Skills: Upon successful completion of the course, students will be able to:	
d1	Relate the morphological features of different protozoa.	D1

C. 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	Exams

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:

	Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1	Define the different diagnostic techniques for detecting, preventive measures to avoid parasitic infections and treatment of each protozoal disease	Lectures, Laboratory **p**ractical,	Home work exams
b2	List the different diagnostic techniques for detecting, preventive measures to avoid parasitic infections and treatment of each protozoal disease	Lectures, Laboratory **p**ractical,	Home work exams
b3	Interpret the results of examination of parasitic specimens	Lectures, Laboratory **p**ractical,	Exams

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	Apply the measures adopted for control and eradication of common medically important protozoa found in Yemen.	Practical Lectures	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	Relate the morphological features of different protozoa.	Lectures	Seminars

V. Course Content:					
A – Theoretical Aspect:					
NO.	**Units/Topics List**	**Sub Topics List**	**Number of Weeks**	**contact hours**	**Learning Outcomes (CILOs)**
1	Introduction and general characteristics of protozoa.		1	2	a1
2	Classification of protozoa of medical importance, General Characteristics, Morphology, Life Cycle, disease, Laboratory Diagnosis, Epidemiology, Prevention and Control:		1	2	a1, b1
3	• **1-The Amoebae**: -	• Entamoeba histolytica • Entamoeba coli; • Entamoeba gingialis; • Endolimax nana; • Dientamoeba fragilis; • Iodamoeba butschlii.	1	2	a1, b2
4	4-Apicomplexia		1	2	a1, b2
5	Med term		1	1	
6	The Flagellates—	Giardia lambia; Chlomastix mensnili; Trichomonas vaginalis; Trichomonas hominis; Trypanosoma brucii; Trypanosoma cruzi; Trypanosoma gambiense; Trypaaosoma rhodesiense; Leishmania donovani; Leishmania aethiopica; Leshmania tropica; Leishmania braziliensis; Leishmania chagasi; Leishmani infantum.	2	4	a1, b2
7	Other Protozoa—	Plasmodium falciparum; Plasmodium malariae; Plasmodium ovale; Plasmodium vivax; Toxoplasma gondii; Pneumocystis carinii;	1	2	a1, b3

8	9-Plasmodia		1	2	a1, b2
9	10- Parasites of imrnuno-compromised patients+D79		1	2	a1, b2
10	FINAL THEORTICAL		1	2	a1, b1,b2,d1
			16	0	32

B - Practical Aspect: (if any)

Order	Tasks/ Experiments	Number of Weeks	contact hours	Learning Outcomes
1	**Entamoeba histolytica – Entamoeba coli**	**1**	**2**	**c1,d1**
2	**Giardia lamblia**	**1**	**2**	**c1,d1**
3	**Trichomonas vaginalis**	**1**	**2**	**c1,d1**
4	**Leishmania speacies**	**1**	**2**	**c1,d1**
5	**Trypanosoma species**	**1**	**2**	**c1,d1**
6	**Plasmodium species**	**2**	**4**	**c1,d1**
7	**Toxoplasma gondii**	**1**	**2**	**c1,d1**
8	**Final practical exam**	**1**	**2**	**c1,d1**
Number of Weeks /and Units Per Semester		**8**	**16**	

V. Teaching Strategies of the Course:

1-	Lectures
2-	Practical session
3-	Seminars

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,b2,b3, c1
2	**Practical exam**	12	30	30%	a1,b1,b2,b3, c1,d1
3	**Final Exam**	16	50	50%	a,b1,b2,b3,d1
	Total	100		100%	

IX. Learning Resources:

1- Required Textbook(s)

1-	Medical parasitology 2012 ,11th Edition by peter j. Hotez , Wiliam C.
2-	A Laboratory Manual 2013,2nd Edition byDennis D.Juranek and James W.Warren.

2- Essential References.

1-	Warren Levinson, Peter Chin-Honh, Elizabeth A. Joyce, Jesse Nussbaum and Brian Schwartz, Review of Medical Microbiology and Immunology, 2018, 15th edition, McGraw-Hill, ISBN: 978-1-259- 64449-8
2-	Bailey & Scott's Diagnostic Microbiology 15th Edition Patricia M. Tille- February 4, 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