



Umm Al-Qura University
College of Applied Medical Sciences
Laboratory Medicine Department



Course Overview - Diagnostic Parasitology Program
(Male Students)

Course code	1701363-6			
Course title:	Diagnostic Parasitology			
Level/semester:	3 rd year / 1 st and 2 nd semesters			
Credit hours:	6CU (6 hours)			
	Theoretical lectures / Wednesday :10 am:12 pm Laboratory lectures/ Monday (8:10) AM			
Course Coordinator	Dr. Amr M. Mohamed – amamohamed@uqu.edu.sa			
Instructors	Name	Office hours	Contact #	E.mail
	Dr. Amr M. Mohamed	Teusday (08:00-10:00) AM	Ext. 4230	amamohamed@uqu.edu.sa
	Dr. Raafat Y. Hassanen	Tuesday (08:00-10:00) AM	Ext. 4230	rayoussef@uqu.edu.sa
	Dr. Raafat Makhlof	Monday (08:00-10:00) AM	Ext. 4184	rtmakhlof@uqu.edu.sa
	Dr. M. A. Al-Bali	Monday (08:00-10:00) AM	Ext. 4206	maelbali@uqu.edu.sa

Course Overview

This course is designed to give, the third year Laboratory Medicine students, a basic knowledge about all aspects of parasitic infections; distribution, functional morphology, life cycle, modes of infection, pathogenesis, clinical picture and control. The course also affords detailed information about the diagnosis of parasitic diseases stressing on diagnostic stages of the common parasites and different diagnostic techniques. The student will gain enough knowledge and skills to do a proper, professional and real-time diagnosis of parasitic infections.

Course Objectives:

By the end of this course students will able to:

- 1) Identify and list the major parasitic infections in man.
- 2) Determine the best method to use in diagnosing a parasitic infection.
- 3) Apply different laboratory diagnostic techniques in parasitology.
- 4) Correlate parasitic infection with pathogenesis, pathology, signs and symptoms.
- 5) Know the mode of infection for each parasite.

List the different measures that can be applied to control a parasitic disease.

Course Description

1ST Semester

W. #	Lectures Topics	Laboratory Topics	Quiz	Date
1	Introduction to Parasitology			7/11/1435
2	Introduction to Platyhelminths & Liver and Lung Flukes	Introduction to Parasitology Laboratory		14/11/1435
3	Intestinal Flukes	Study of Intestinal, Liver and Lung Flukes		21/11/1435
4	Blood Flukes	Study of Schistosomes		28/11/1435
5	Intestinal Cestodes	Indirect Haemagglutination Assay for Schistosomiasis		21/12/1435
6	Intestinal Cestodes (Cont.)	Study of Cestodes		28/12/1435
7	Tissue Cestodes	Stool analysis (Direct smear – wet mount)	Q1	5/1/1435
8	Introduction to Nematodes & Enterobiasis	Stool Analysis (Sedimentation Technique)		12/1/1436
9	Enterobiasis (cont.) & Ascariasis	Stool Analysis (Floatation Technique)		19/1/1436
10	Hookworms & Trichuriasis	<i>Enterobius sp.</i> and Scotch Tape Technique		26/1/1436
11	Capillariasis Strongyloidiasis & Dracunculiasis	Study of Intestinal Nematodes		4/2/1436
12	Blood & Tissue Nematodes	Kato-Katz Thick Fecal Smear	Q2	11/2/1436
13	Blood & Tissue Nematodes (cont.)	Study of Blood & Tissue Nematodes		18/2/1436
14	Visceral & Cutaneous Larva Migrans	Slides Revision		25/2/1436
15	Practical Exam.			2/3/1436
16				
17/18	Final Exam			16/3/1436 23/3/1436

2nd Semester

W. #	Lectures Topics	Laboratory Topics	Quiz	Date
1	Introduction to Protozoa	Introduction to Protozoology		TBS
2	Amoebiasis	Study of Intestinal Amoebae		TBS
3	Pathogenic Free Living Amoebae & Balantidiasis	Study of Intestinal & Urogenital Flagellates		TBS
4	Giardiasis & Trichomoniasis	Stool Ova and Parasites (O&P) Exam		TBS
5	Intestinal Sporozoa: Cryptosporidiosis, Cyclosporiasis	Modified Ziehl-Neelsen Technique		TBS
6	Tissue protozoa (Toxoplasmosis)	Study of Intestinal Sporozoa		TBS
7	Blood and Tissue Flagellates (Cutaneous & Mucocutaneous Leishmaniasis)	Serological Techniques in Parasitology & Immuno-diagnosis of Toxoplasmosis	Q1	TBS
8	Blood and Tissue Flagellates (Visceral Leishmaniasis)	Molecular Techniques in Parasitology (PCR)		TBS
9	Blood and Tissue Flagellates (Trypanosomiasis)	Study of Blood & Tissue Flagellates		TBS
10	Malaria	Thick & Thin Blood Films Techniques		TBS
11	Malaria (Cont.)	Study of <i>Plasmodium spp.</i> & Est. of Parasitaemia Level		TBS
12	Babesiosis	Quantitative Buffy Coat Technique (QBC)	Q2	TBS
13	Scabies & Myiasis	Slides Revision		TBS
14	Practical Exam.			TBS
15/16				
17/18	Final Exam			TBS

TBS: To be specified at the beginning of the 2nd semester

Evaluation:

Schedule of Assessment Tasks for Students During the Semester			
Assessments	Assessment task	Week due	Proportion of Final Assessment
1	Laboratory reports	Every Week	5 %
2	Quiz	Designated weeks	25%
3	Assignment	At the end of each semester	5 %
4	Final practical exam	15 th Week	25%
5	Final written examination	17/18 th Week	40 %

Learning Resources

1. Required Text(s)

Diagnostic Medical Parasitology, Lynne Garcia. Pub by ASM Press; 5th edition (November 30, 2006). ISBN-10: 1555813801, ISBN-13: 978-1555813802.

2. Essential References

- Medical Parasitology. A Practical Approach, Elizabeth A. Zeibig. Pub by Saunders; 1st edition (January 15, 1997). ISBN-10: 0721651879, ISBN-13: 978-0721651873.
- Atlas of Human Parasitology, Lawrence Ash, Thomas Orihel. Pub by American Society for Clinical Pathology; 5th Edition (January 31, 2007). ISBN-10: 0891891676, ISBN-13: 978-

Good Luck