

Parasitology

COURSE TITLE:	MEDICAL PARASITOLOGY
DURATION:	15 Weeks
Course Units:	2 credit hours (semester system)

General Objectives	Course Description	Mode of Teaching
	Evaluation	Reference Books

I. AIM OF THE COURSE

This course is designed to recognize parasitic diseases an important component of medical microbiology, tropical medicine and infectious diseases. This to be fulfilled through discussing most comprehensively those parasites which cause serious disease in significant number of people specially in Saudi Arabia, and which are amenable to effective treatment, control and prevention. Also to give help to those who have to face practical problems in tropical medicine, wherever they may be.

II. **GENERAL OBJECTIVES**

At the end of the course students should be able to:

- 1) Define terms relating to medical parasitology.
- 2) Know the classification of medically important human parasites.
- 3) Recognize mode of parasitic infections and the role of vectors in disease transmission.
- 4) Understand related clinical manifestations, pahthogenesis, host defense mechanisms and the relevant diagnostic methods.

- 5) Be aware of the Epidemiology, control, prevention and other special problems with respect to endemic parasitic diseases in Saudi Arabia, from understanding the life cycle of the parasites.
- 6) Know some arthropods of medical importance.
- 7) Understand and practice basic laboratory techniques used for diagnosis of parasitic infection, of different specimens through detection and identification of parasites.

III. COURSE DESCRIPTION

The course covers the following subjects per individual parasite.

Generic name and common name(s).

Life cycle.

Morphology of parasitic stages of diagnostic significance.

Geographical distributions and epidemiological factors.

Modes of infection, pathogenesis, and pathology.

Clinical manifestations pathognomonic for a certain parasitic disease. Appropriate diagnostic techniques.

Treatment, prevention and control measures.

The following topics should be fulfilled:

A-LECTURES

1. Gross morphology of different parasites and insects of medical importance.
2. *Entamoeba histolytica*, *E. coli* & *Balantidium coli*.
3. *Trichomonas vaginalis*, Trypanosomes & *Leishmania*.
4. Malaria I.
5. Malaria II.
6. Trematodes: *Fasciola* spp. & Schistosomes.

7. Nematodes: Ascaris, enterobius & Ancylostoma
8. Filaria worms.
9. Cestodes I.
10. Cestodes II.

B- LABORATORY PRACTICALS

The aim is to make sure that the students handle, master and get acquainted with:

1. Gross clinical specimens.
2. Microscopic and projector slides demonstration.
3. Demonstration of laboratory techniques used for diagnosing parasitic disease.

C- TUTORIALS

Selected clinical Parasitology topics will be discussed during second semester. Also students will be encouraged to hold seminars whenever time allows.

IV. MODES OF TEACHING

Lectures, tutorials and laboratory practicals

V. EVALUATION

Method	Weightage
1. Mid semester exam	40%
2. Final Written Exam (end of 2 nd semester)	40%
3. Continuous Lab Evaluation	10%
4. Lab Examination (end of 2 nd semester)	10%
Total	100%

VI. REFERENCE BOOKS

1. Wolf-medical Atlas Peter, Gilles-2nd edition (parasitology).
2. Diagnostic Medical Parasitology by Grcia & Brek. 4th edition.
3. Hunter Tropical Medicine and Emerging infectious Diseases by Strikland -8th edition.
4. Diagnostic Pathology of Parasitic Infections with clinical correlations by Gutierrez.
Lea and Febiger, Philadelphia.