



Course description:

This course focused on the theory and principles of the parasites and hosts, their life cycles and laboratory techniques for the identification for the pathogenic parasites in the clinical laboratory.

Aims of the course:

To equip students with a fundamental understanding of science and competence in parasitological methods.

To stimulate and foster a sense of excitement in Parasitology as an approach to understanding living organisms.

To provide advanced knowledge, understanding, and critical judgment appropriate for professional employment in Parasitology or a related discipline

By: • providing a broad-based knowledge and understanding of Parasitology.

- providing basic practical skills and experience of laboratory techniques in Parasitology.

- encouraging the development of skills relating to the systematic acquisition of factual information and data.

- encouraging the critical analysis, interpretation and discussion of factual information, data and issues in Parasitology.

- providing opportunities to practice and improve written and oral communication skills.

Intended Learning Outcomes: (ILOs)

A. Knowledge and Understanding

A1. Concepts and Theories:

- (1) Knowledge of theories and concepts of parasitology and parasitism
- (2) Analysis of the outcome of diseases in relation to the mechanism of pathogenesis
- (3) Choose the right diagnostic methods based on the knowledge of life cycle of parasites
- (4) Describe the prevention of parasitic infection based on the route of parasitic infection
- (5) Keep up on academic progress and situations occurring of new emerging parasites

A2. Contemporary Trends, Problems and Research:

- * demonstrate a broad understanding of the central facts and the experimental basis of modern Parasitology.
- * solve problems in the context of this understanding.
- * demonstrate practical skills in fundamental parasitological techniques.
- * present and interpret results obtained from using these techniques.

A3. Professional Responsibility:

- * describe in details the life cycle of medically important parasites.
- * define the organs commonly involved in the infection.
- * recall the relationship of this infection to symptoms, relapse and the accompanying pathology.
- * arrange the factors that determine endemicity of the parasite infection
- * state the distribution and epidemiology of the parasites
- * explain the methods of parasite control, e.g. chemotherapy, molluscicides, general sanitation plus describing the advantages and disadvantages of each method.

B. Subject-specific skills

Students can apply theoretical and practical knowledge to their real life activities and can apply knowledge and skill to prevent themselves and community from parasitic infection

Application of Methods and Tools: Lecture, Selected videos, Demonstration and discussion, Laboratory practice, Case studies

C. Critical-Thinking Skills

Students are encouraged to develop their critical thinking and communication skills.

D. General and Transferable Skills (other skills relevant to employability and personal development)

The course will also provide a discussion of teamwork, leadership, and interpersonal skills needed by health care professionals.



Course structures:

Week	Credit Hours	ILOs	Topics	Teaching Procedure	Assessment methods
1		A,B,C,D	Introduction to parasitism and host-parasite relationship	Lectures using power point presentation	
2		A,B,C,D	Protozoa: General Features	1. Lectures using power point presentations 2. Home assignments 3. Oral presentation of certain topics by small groups 4. Encourage students to read from text books	
2		A,B,C,D	Parasitic Protozoa: <i>Amoeba, Giardia, Trichomonas,</i>	1. Lectures using power point presentations 2. Home assignments 3. Oral presentation of certain topics by small groups 4. Encourage students to read from text books	
3		A,B,C,D	Parasitic Protozoa: <i>Trypanosoma, Leishmania</i>	Lecture Laboratory practice Case studies	
4		A,B,C,D	Parasitic Protozoa: <i>Plasmodium, Toxoplasma, Babesia, Balantidium</i>	Lecture Laboratory practice Case studies	
			First exam		
5		A,B,C,D	Parasitic Nematodes: General features	Lecture Laboratory practice	

				Case studies	
6		A,B,C,D	Parasitic Nematodes: Trichinella, Trichuris, Strongyloides	Lecture Laboratory practice Case studies	
7		A,B,C,D	Parasitic Nematodes: Hookworms, Enterobius, Ascaris	Lecture Laboratory practice Case studies	
8		A,B,C,D	Parasitic Nematodes: Wuchereria, Toxocara, Loa	Lectures using power point presentation	
			Second exam		
9		A,B,C,D	Parasitic Cestodes: General features	Lecture Case studies	
9		A,B,C,D	Parasitic Cestodes: Diphyllobothrium, Taenia	Lecture Case studies	
10		A,B,C,D	Parasitic Cestodes: Echinococcus, Hymenolepis	Lectures using power point presentation	
11		A,B,C,D	Parasitic Trematodes: General features	Lectures using power point presentation	
12		A,B,C,D	Parasitic Trematodes: Blood flukes	Lectures using power point presentation	
13		A,B,C,D	Parasitic Trematodes: Liver flukes, Lung flukes	Lectures using power point presentation	
			Final exam		

References:**a. Main Textbook:**

Medical parasitology/Edward K. Markell, Marietta Vog, David T. John/ Philadelphia:
W.B.Saunders,

b. Supplementary Textbook(s):

- 1) Foundations of parasitology, Roberts, Larry, Boston
- 2) Essential parasitology, Schmidt, Gerald D., Dubuque
- 3) Text book of medical parasitology, CK Jayaram Paniker
- 4) Animal agents and vectors of human disease, Paul Chester Beaver

Assessment Methods:

Methods	Grade
First exam	15
Second exam	15
Final exam	40
Practical exam	30