

Course Code	Course Name	Credits
26ZY104	PARASITOLOGY	04

Course Objectives

- To understand the concepts and importance of parasitology.
- To study the morphology, life cycle and classification of parasites.
- To develop knowledge on host-parasite relationships and transmission.
- To understand parasitic diseases and their control measures.
- To enhance knowledge on medical and veterinary parasitology.

Learning Outcomes

- Explain the importance and scope of parasitology.
- Identify major groups of parasites and their characteristics.
- Demonstrate knowledge of parasite life cycles and transmission.
- Analyze parasitic diseases and preventive measures.
- Apply parasitological knowledge in public health and veterinary science.

Unit 1 - Introduction to Parasitology (12 Hrs.)

Definition, scope and importance of parasitology; types of parasites and hosts; host-parasite interactions; adaptation of parasites; classification of protozoan and helminth parasites.

Unit 2 - Protozoan Parasites (12 Hrs.)

Morphology, life cycle, pathogenicity and control of Entamoeba, Plasmodium, Trypanosoma, Leishmania and Giardia; transmission and epidemiology of protozoan diseases.

Unit 3 - Helminth Parasites (12 Hrs.)

Morphology, life cycle, pathogenicity and control of Fasciola, Taenia, Ascaris, Wuchereria and Ancylostoma; helminth infections in humans and animals.

Unit 4 - Arthropod Parasites and Vectors (12 Hrs.)

Ticks, mites, lice, fleas and mosquitoes as parasites and vectors; vector-borne diseases; transmission mechanisms; prevention and vector control strategies.

Unit 5 - Applied Parasitology (12 Hrs.)

Diagnosis of parasitic diseases; immunology of parasitic infections; chemotherapy and antiparasitic drugs; zoonotic parasites; public health importance and control programmes.

Reference Books:

1. Cheng, T.C. (2017). General Parasitology. Academic Press.
2. Roberts, J. S. and Janovy, J. (2019) Foundations of Parasitology. McGraw Hill.
3. Smyth, J.D. (2016). Introduction to Animal Parasitology. Cambridge University Press.
4. Paniker, C.K.J. (2018). Textbook of Medical Parasitology. Jaypee Brothers.
5. Soulsby, E.J.L. (2015). Helminths, Arthropods and Protozoa of Domesticated Animals. Bailliere Tindall.

Websites and eLearning Sources:

1. <https://www.cdc.gov/parasites/>
2. <https://www.who.int/>
3. <https://www.ncbi.nlm.nih.gov/>

