



**LEAD CITY UNIVERSITY, IBADAN**  
**Faculty of Sciences**  
**Department of Microbiology/Biology**

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**COURSE PARTICULARS**

**Courseware for Tropical Parasites (ZOO 312)**

**Units: 3**

**Status: Compulsory**

**Course Code: ZOO 312**

**Course Title: Biology of Tropical Parasites**

**LECTURERS DETAILS**

**Name:** Agboola, A.O

**Qualifications:** M.Sc., M.Phil (Parasitology)

**Phone :** 0810-968-6353

**Email:** agboolagunju@gmail.com

**Area of Specialization:** Zoology, Public Health Parasitology

**Name :** Adegbehingbe K.

**Qualifications:** B.Sc. Biology , M.Sc. Zoology (Parasitology)

**Phone :** 08068043821

**Email:** giftsola2011@yahoo.com

**Area of Specialization:** Public-Health Parasitologist& Biologist.

**Name :** Umezurike E.

**Qualifications:** B.Sc. Microbiology , Msc. Epidemiology

**Phone :** 08135939991

**E-mail:** Umezurikee @yahoo.com

**Area of Specialization:** Medical Microbiology and Public Health.



**Course Objectives:** The students should be able to describe the habitat, give a detailed classification of the parasites to the species level, epidemiology, morphology, life cycle, transmission, pathogenesis, immunological responses of the host and control of the selected parasitic diseases.

**Course Requirement/Assessment:**

Continuous Assessment Test	40%
Terminal Examination	60%
<b>Total</b>	<b>100%</b>

**Recommended text:** Otubanjo, O.A. (2012) Parasites of Man and Parasites Panaf Publishing Inc. Abuja 196pp

Ukoli, F.M.A. (1990). Introduction to parasitology in Tropical Africa. Texflow Limited, Ibadan. 462pp

**Teaching Plan:**

Week 1: Introduction to Tropical Parasitic Diseases.

Week 2: Classification of Parasitic diseases.

Week 3: Nematodes: Schistosome and Schistosomiasis

Weeks 4: Phylum Apicomplexa : Tissue invading Sporozoa: *Toxoplasma* and Toxoplasmosis,

Week 5: Blood invading Sporozoa: Babesiosis and Babesiosis, *Plasmodium* and Malaria,

Week 6: Intestinal Sporozoa: *Coccidia* and Coccidiosis

Week 7: Intestinal Flagellates: *Giardia* and Giardiasis

Week8: Haemoflagellates: *Leishmania* and Leishmaniasis.

Week 9: Subphylum Mastigophora: The Trichomonads.

Weeks 9: Human Intestinal worms – Hookworms and their general characteristics

Weeks 10 Human Intestinal worms- *Necator Americanus*

Weeks 11: Human Intestinal worms- *Ancylostoma Duodenale*

Week 12: Guinea worm Infection- *Dracunculus Medinensis*

Week 13: Trypanosomiasis

**Tutorial Questions**

**Section A**

1. Attempt a description of the epidemiology of schistosomiasis in Nigeria.
2. Explain the role of Water, Sanitation and personal Hygiene in the persistence of Neglected Tropical Diseases.
3. Explain the life cycle of *Schistosoma haematobium*, identifying the infective stages as well as the opportunities of control.

4. You are a member of an investigative team to Eggua community in Yewa North LGA, how will you help them reduce or eradicate schistosomiasis?

### Section B

- 5a. Describe the morphology and life cycle of Human Malaria.
- b. Enumerate four factors which promote epidemiology of malaria infection.
  - c. State four obstacles which prevent eradication and resurgence of malaria infection
- 6a. The host immunity plays a critical role in pathogenicity of Malaria infection. Discuss.
- b. Describe the mode of transmission of *Toxoplasma gondii*.
  - c. Mention four sources of infection of Human Toxoplasmosis.
- 7 a. Carefully elucidate the role of immunity in Toxoplasmosis infection.
- b. Discuss why *Trichomonas vaginalis* is cosmopolitan and exhibit a high global prevalence.
  - c. Describe the mode of transmission and control of Trichomoniasis.

### SECTION C

8. a. The pathology of *Necator Americanus* is divided into stages explain the stages
- b. Describe the Lifecycle of *Necator Americanus* with an appropriate diagram
9. a. Describe the morphology of Guinea worm
- b. Explain the lifecycle of guinea worm along with the treatment for Guinea worm infection
10. a. Explain the life cycle of *Trypanosoma Gambiense* as well as the morphology of the worm
- b. List the symptoms of trypanosomiasis, its vectors as well as the routes of entry.

