1. Clinical Tropical Medicine

Attendees will be able to:
- Describe the epidemiology, and pathogenesis of major tropical diseases
- Recognize the clinical presentations, and complications of major tropical diseases
- Develop a clinical approach to evaluating patients presenting with diseases acquired in the tropics
- Establish skills in the diagnosis and treatment of important tropical diseases

Emphasis will be placed on communicable tropical diseases with large global burden of disease:

Parasitic Infections:

Blood parasites:
- Malaria
- Chagas (American trypanosomiasis)
- Human African trypanosomiasis
- Schistosomiasis

Gastrointestinal parasites
- Protozoa (Giardia and Entamoeba histolytica)
- Soil transmitted helminths

Tissue parasites
- Lymphatic filariasis
- Neurocysticercosis
- Tegumentary leishmaniasis

Bacterial Infections:
- Cholera
- Bacillary dysentery (Shigellosis)
- Typhoid/Non-typhoid salmonella
- Tuberculosis
- Leprosy

Viral Infections:
- HIV
- Dengue, Zika, Chikungunya
- Tropical encephalitis (arbovirus)
- Japanese Encephalitis
- Viral hemorrhagic fevers

Pediatrics in resource limited settings:
- Diarrhea
- Respiratory illness
- Vaccination

Skin diseases in the tropics
2. **Parasitology**

Through interactive lectures and practical laboratory sessions, attendees will:

- Recognize the lifecycles of clinically important parasites with respect to transmission and control
- Identify the development of parasites within the human body and the corresponding clinical symptoms and pathology
- Develop laboratory diagnostic skills to diagnose various blood and gastrointestinal parasites

Clinical lectures will include parasitology teaching on gastrointestinal parasites (protozoa, soil transmitted helminths, cestodes, trematodes), blood parasites (malaria, trypanosomes, schistosomiasis) and tissue parasites (filarial parasites).

Laboratory practicals will provide opportunity for microscopy use to detect and identify parasites stages important in the diagnosis of disease from blood films and fecal smears. Laboratory practicals will be supported with video pathology and demonstration specimens for in-depth learning.

3. **Public Health**

This course will introduce public health in the tropics through interactive lectures and problem-solving seminars in interdisciplinary health teams. Following the course, attendees will:

- Demonstrate an approach to outbreak investigation
- Develop a general approach to preventing and controlling infections within a community using modalities such as immunization and infection control

**Clinical lecture topics**

- Overview of diarrhea: burden of illness
- Gastrointestinal protozoa
- Bacterial dysentery (Shigelllosis) and cholera
- Typhoid and non-typhoidal salmonella (NTS) infections
- HIV in resource-limited settings
- Tuberculosis in resource-limited settings
- Leprosy
- Malaria
- African trypanosomiasis (Sleeping Sickness)
- American trypanosomiasis (Chagas Disease)
- Cutaneous leishmaniasis
- Visceral leishmaniasis (Kala azar)
- Neurocysticercosis
- Schistosomiasis
- Soil transmitted helminths (STH),
- Filarial Nematodes – lymphatic filariasis
- Viral hepatitis
- Viral encephalitis
- Dengue, Zika and Chikungunya focus
- Viral Hemorrhagic Fevers (VHF)
- Tropical dermatology
- Respiratory illness in children in resource-limited settings
- Snake bite

**Laboratory topics**

- Introduction to laboratory, basic hematology, microscopy, and gut protozoa
- Introduction to hematology, malaria microscopy and practical
- Introduction to hemoflagellates and practical
- Introduction to helminths and practical
- Laboratory practical and review (including a laboratory practical examination of material from the week at the end of the course)

**Public Health topics**

- Introduction and investigation of an outbreak
- Core public health issues will be integrated into the clinical lectures
- Immunization
- Infection control in public health in resource-limited settings
- Managing emergencies

**Problem solving sessions**

- Consolidation of material covered by working through interactive problem solving exercises will be scheduled each day.