



## Clinical Tropical Medicine and Traveler's Health Course



Sponsored by the  
Global Health Program,  
Department of Microbiology,  
And the WVU School of Medicine

This course is accredited by the American Society of Tropical Medicine and Hygiene

The West Virginia University course, “Clinical Tropical Medicine and Traveler’s Health” is one of ten U.S. courses accredited by the American Society of Tropical Medicine and Hygiene (ASTMH) as a prerequisite for the ASTMH Certificate of Knowledge exam. This course contains three online modules and one face-to-face two-week module. The course is designed to provide training in clinical tropical medicine, travel medicine, and related public health issues through a multidisciplinary approach to disease.

The course is open to family medicine practitioners, general internists, internal medical subspecialists, pediatricians, emergency medicine physicians, obstetricians/gynecologists, anesthesiologists, pathologists, surgeons, dentists, nurses, public health professionals, physician assistants, and anyone interested in making a career change.

Lectures are recorded and saved electronically, and course participants will have unlimited access to annually updated lectures for the modules in which they have participated.

### **Information About West Virginia University and Morgantown, West Virginia**

West Virginia University, founded in 1867, is located in Morgantown, West Virginia, a city of nearly 31,000 residents, 61,000 with students, near West Virginia’s northern border. It is one of only 46 public universities that serve their state as research and land-grant institutions.

Located in “Mountaineer Country,” Morgantown is a recreational haven year-round. As one of West Virginia’s largest cities, it has been rated the No. 1 Small City in America and the Best Small City in the East. Morgantown is within easy traveling distance of Washington, D.C. to the east, Pittsburgh to the north, and is easy to reach from Cleveland and Columbus, Ohio.

### **Social Justice Syllabus Statement**

West Virginia University is committed to social justice. We concur with that commitment and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Our university does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise us, and we will make appropriate arrangements with Disability Services.

### **Presenters/Speakers**

Information related to the presenters and speakers for the course can be found on the Conference Website at <https://medicine.hsc.wvu.edu/tropmed/tropical-medicine-course/course-information/>.

## **Disclosure Policy**

In accordance with the Accreditation Council for Continuing Medicine Education requirements, information on disclosure, speakers, agenda and commercial support will be available on our website and included in materials distributed at the beginning of or during the conference.

This course satisfies the didactic requirements for persons wishing to sit for the Certificate of Knowledge in Tropical Medicine and Traveler's Health examination offered every other year by the American Society of Tropical Medicine and Hygiene. Limited international field site opportunities are available to satisfy the requirement for two months of overseas tropical medical experience.

**For more information outlining the program curriculum, contact:**

**Jacque Visyak**

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**or**

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**<http://medicine.hsc.wvu.edu/tropmed>**

## **Module 1 - Global Public Health** **(Online Only)**

### **Accreditation**

The WVU School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The WVU Office of CME designates this online activity for a maximum of 74.5 *AMA PRA Category 1 Credits<sup>TM</sup>*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This continuing education activity has been provided by the WVU School of Nursing for 89.4 contact hours. The WVU School of Nursing is an approved provider of continuing education by the State of West Virginia Board of Examiners for Registered Professional Nurses, Legislative Rule #19CSR11-4 under provider number 50-26086.

Each participant should claim only those credits that he/she actually spent in the activity.

### **Objectives**

**At the end of this module, the participants should be able to:**

- Identify major global issues in tropical public health including women's health, emerging infectious diseases, geographic distribution of infectious diseases, water and sanitation, and famine and refugees.
- Describe the neglected tropical diseases, non-communicable diseases, and vaccine-preventable diseases and their impact worldwide.
- Recognize the role of epidemiology, biostatistics, and surveillance systems in global health.
- Discuss the challenges related to optimal nutrition, growth monitoring, recognizing malnutrition and microdeficiencies in tropical areas.

**Lectures include:**

- Antimicrobial Resistance (2 hours)
- Breastfeeding in a Global Setting (2 hours)
- Communicable Diseases, EPI Curves, and Modes of Transmission (2 hours)
- Community and National Responses to Malnutrition (1 hour)
- Community Approaches to Primary Health Care (2 hours)
- Cultural Issues in Global Health (2 hours)
- Disabilities (2 hours)
- Disaster Medicine (2 hours)
- Displaced and Refugee Populations (2 hours)
- Ebola (1 hour)
- Emerging and Re-Emerging Infectious Diseases (2 hours)

- Environmental Health (2 hours)
- EPI Vaccines and Preventable Diseases (3 hours)
- Epidemiology of Communicable Diseases, and Epidemic Investigation (2 hours)
- Essential Drug List (2 hours)
- Family Planning (1.5 hours)
- Geographic Distribution of Infectious Diseases (1 hour)
- Global Disease Eradication (2 hours)
- Global Health Ethics (2 hours)
- Global Mental Health: Perspectives and Epidemiology (1.5 hours)
- HIV Epidemiology and Control (2 hours)
- Injuries (1 hour)
- International Oral Health (2 hours)
- Intro to EPI and Measures of Morbidity and Mortality (2 hours)
- Key Micronutrient Deficiencies and Their Prevention (2 hours)
- Medical Management of Bioterrorism (3 hours)
- Neglected Tropical Diseases (2 hours)
- Non-Communicable Diseases: A Global Perspective (2 hours)
- Nutrition and Growth Monitoring (2 hours)
- Occupational Health (2 hours)
- Palliative Care in Developing Countries (2 hours)
- Protein Energy Malnutrition (1 hour)
- Role of International Organizations and Volunteer Organizations in Global Health (2 hours)
- Role of Women in Health (1.5 hours)
- Rural Development (2 hours)
- Statistical Inference, Hypothesis Testing, and Sample Size (1 hour)
- Study Design, Clinical Trials, and Metanalysis (2 hours)
- Surveillance Systems (2 hours)
- Trafficking (2 hours)
- Water and Sanitation (2 hours)

## **Module 2 - Clinical Practice in the Tropics and Introduction to Travel Medicine** **(Online Only)**

### **Accreditation**

The WVU School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The WVU Office of CME designates this online activity for a maximum of *67 AMA PRA Category 1 Credits<sup>TM</sup>*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This continuing education activity has been provided by the WVU School of Nursing for 80.4 contact hours. The WVU School of Nursing is an approved provider of continuing education by the State of West Virginia Board of Examiners for Registered Professional Nurses, Legislative Rule #19CSR11-4 under provider number 50-26086.

Each participant should claim only those credits that he/she actually spent in the activity.

### **Objectives**

**At the end of this modules, the participants should be able to:**

- Discuss diseases and clinical syndromes encountered in tropical and sub-tropical regions.
- Diagnose and treat these diseases.
- Describe the differential diagnosis of fever in the returning traveler, diarrhea, rash, and other important symptoms.
- Manage travel-related illnesses.

### **Lectures include:**

- Animal Bites and Rabies (2 hours)
- Aviation and Diving Medicine (1 hour)
- Bone and Joint Infections (1 hour)
- Burn Care in Developing Nations (1 hour)
- Cardiovascular Diseases in the Tropics (1 hour)
- Cross Cultural Medicine (2 hours)
- Cultural Shock and Re-Entry Shock (1 hour)
- Dermatology Cases (1 hour)
- Dermatology for Dark Skinned Peoples (1 hour)
- Dermatology in the Tropics (2 hours)
- Diarrhea and the Management of Acute Dehydration (2 hours)
- Enteric Fever (2 hours)
- Eosinophilia (1 hour)
- GI Diseases in the Tropics (2 hours)

- Heat Associated Illness (1 hour)
- Hematology in the Tropics (2 hours)
- Hepatosplenomegaly (2 hours)
- High Altitude Sickness (1 hour)
- Hypothermia (1 hour)
- Ill-Returning Traveler (1 hour)
- Immigrant and Refugee Health (2 hours)
- Infective Endocarditis (1 hour)
- Malignancies in the Developing World (2 hours)
- Neurologic Cases (2 hours)
- Neurologic Diseases in the Tropics (1 hour)
- Pediatric Respiratory Illness (1 hour)
- Pediatric Travel (2 hours)
- Poisonous Plants and Fish (1 hour)
- Prolonged Fever and FUO (1 hour)
- Radiology (2 hours)
- Respiratory Diseases in the Tropics (2 hours)
- Seizure Management (1 hour)
- Skin and Soft Tissue Infections (2 hours)
- Surgery in the Tropics (2 hours)
- Travel Medicine I (2 hours)
- Travel Medicine II (2 hours)
- Travel Medicine Cases (2 hours)
- Travel Vaccines (2 hours)
- Tropical Medicine Cases (2 hours)
- Urology in the Tropics (2 hours)
- Venomous Insects and Animals (3 hours)
- Viral Encephalitis (2 hours)

## **Module 3 - Medical Parasitology and Simulations** **(In Person, Live, Only)**

### **Accreditation**

The WVU School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The WVU Office of CME designates this live activity for a maximum of *100.75 AMA PRA Category 1 Credits<sup>TM</sup>*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This continuing education activity has been provided by the WVU School of Nursing for 120.8 contact hours. The WVU School of Nursing is an approved provider of continuing education by the State of West Virginia Board of Examiners for Registered Professional Nurses, Legislative Rule #19CSR11-4 under provider number 50-26086.

Each participant should claim only those credits that he/she actually spent in the activity.

### **Objectives**

**At the end of this modules, the participants should be able to:**

- Identify important parasitic diseases in tropical and developing countries.
- Describe clinical presentations, diagnosis and management of these diseases.
- Discuss important vectors that transmit and cause infectious diseases, including insects and ticks.
- Describe the evaluation of patients at a travel clinic including pre and post travel, required immunizations and medications.

**Lectures and simulations include:**

- Basic Lab Techniques (1 hour)
- Blood and Tissue Protozoa Lab (3 hours)
- Blood Smear Lab (3 hours)
- Cestode Case Studies (2 hours)
- Cestodes and Larval Cestodes (2 hours)
- Cestodes Lab (2 hours)
- Clinical Cases in Entomology (2 hours)
- Clinical Parasitology by Organ Systems (5.5 hours)
- Control of Parasitic Infections (1 hour)
- Dentistry in the Tropics (3 hours)
- Drugs for Parasitic Infections (2 hours)
- Filariasis and Tissue Nematodes (2 hours)



- Intestinal Nematodes (2 hours)
- Intestinal Protozoa Lab (4 hours)
- Intestinal Protozoa, Tissue Amoeba (3 hours)
- Jeopardy (2 hours)
- Lab Review (2 hours)
- Leishmaniasis, Trypanosomiasis (4 hours)
- Malaria Cases (2 hour)
- Malaria Lab (2 hours)
- Malaria with Discussion (2 hours)
- Micro Lab (Staining Techniques) (2 hours)
- Module Overview (1 hour)
- Nematode Case Studies (2 hours)
- Nematode Lab (2 hours)
- Neonatal Resuscitation (4 hours)
- OBGYN in the Tropics (2 hours)
- Ophthalmology Made Easy (2 hours)
- Ophthalmology Made Easy Practicum (1 hour)
- Other Trematodes (2 hours)
- Parasitology Practicum (4 hours)
- Parasitology Review (2 hours)
- Peds Procedural Pearls (4 hours)
- Protozoa Case Studies (2 hours)
- Schistosomiasis (2 hours)
- Splints Lab, Suture Lab, and Wound Care (1.5 hours)
- Stool O & P Lab (3 hours)
- Toxoplasmosis (45 minutes)
- Travel Clinic and Discussion (2 hours)
- Trematode Lab (2 hours)
- Trematode Case Studies (2 hours)
- Ultrasound Lab (4 hours)
- Vector Control (2 hours)

## Module 4 - Infectious Diseases (Online Only)

### Accreditation

The WVU School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The WVU Office of CME designates this online activity for a maximum of 73 *AMA PRA Category 1 Credits<sup>TM</sup>*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This continuing education activity has been provided by the WVU School of Nursing for 87.6 contact hours. The WVU School of Nursing is an approved provider of continuing education by the State of West Virginia Board of Examiners for Registered Professional Nurses, Legislative Rule #19CSR11-4 under provider number 50-26086.

Each participant should claim only those credits that he/she actually spent in the activity.

### Objectives

**At the end of this modules, the participants should be able to:**

- Implement field-based preventive and control measures for major communicable infectious diseases.
- Discuss infectious diseases caused by bacteria, viruses and fungi that are encountered in tropical regions.
- Diagnose and treat these diseases including tuberculosis, HIV, sexually transmitted infections, zoonoses, and vector-borne infections.

**Lectures include:**

- Acute Lower Respiratory Illness (2 hours)
- Acute Viral Hepatitis (1 hour)
- Botulism (1 hour)
- Case Studies I (2 hours)
- Case Studies II (2 hours)
- Cases (2 hours)
- Chikungunya (1 hour)
- Cholera (1 hour)
- Dengue (1 hour)
- Diarrhea and ORS (1 hour)
- Diphtheria, Pertussis, and Tetanus (2 hours)
- Ebola (1 hour)
- Extra Pulmonary TB (2 hours)

- Hansen's Disease (Leprosy) (2 hours)
- Hepatitis Cases (1 hour)
- HIV Cases in Africa (1 hour)
- HIV Global Overview (1 hour)
- HIV Management and Opportunistic Infections (2 hours)
- HIV Presentation and Management (2 hours)
- Immunologic Diagnosis (1 hour)
- Improving Patient Adherence (1 hour)
- Influenza (2 hours)
- Leptospirosis (1 hour)
- Lymphadenitis (2 hours)
- Measles, Mumps, and Rubella (1 hour)
- Meningococemia and Other Bacteria Sepsis (2 hours)
- Molecular Diagnosis and Case Presentations (1 hour)
- Nondengue Hemorrhagic Fever and Arboviral Illnesses (2 hours)
- Non-Tuberculous Mycobacteria (1 hour)
- Peds HIV (2 hours)
- Polio (1 hour)
- Practical Uses of Vaccines (2 hours)
- Rheumatic Fever and Other Strep (2 hours)
- Rickettsial Disease (2 hours)
- Rotavirus and Other Viral GE (2 hours)
- Shigella and Amebiasis (2 hours)
- STI-I (2 hours)
- STI-II (2 hours)
- Syphilis and Other Treponematoses (2 hours)
- Systemic Mycoses, Opportunistic Fungi, and Antifungals (3 hours)
- TB and Peds Cases (2 hours)
- TB in the Tropics (1 hour)
- Typhoid (1 hour)
- UTI (2 hours)
- Zika (1 hour)
- Zoonoses (2 hours)

