Tropical Medicine and Diseases in Latin America

Professor: Kenneth Rojas Calderon, MD.
Rodolfo Garbanzo, MD.

Course Description

This program is intended to create a unique interdisciplinary professional experience for students interested in Tropical Medicine and Diseases. Tropical medicine research holds a special place as an important activity that as a consequence of multiple factors, such as globalization and migration, has extended and reaffirms its importance not only in tropical developing countries, but also in non-endemic areas in the developed world. The different aspects related to the practice of tropical medicine and their multiple components need to be frequently visited. Three of the most important infectious terminal diseases in the world that significantly affect tropical areas are HIV/AIDS, tuberculosis and malaria. These pathologies, together with other important diseases, represent relevant public health problems, particularly in Africa, Asia and Latin America.

The course provides students with definitions and updated material that will allow the student to learn about the majority of common tropical diseases. Students prepare for each class by reading and reviewing chapters from the textbook. The instructor will review important concepts in class for each week’s material. Because of the seminar approach of this course, students will work independently or in groups to develop investigative, writing, and presentation skills, as well as participate in open class discussions.

Course Learning Activities

The course methodology is based on readings from chapters in the text: Mansons Tropical Infectious Diseases 23rd Edition; Tropical Diseases A Practical Guide for Medical Practitioners and Students. Students will read several chapters a week in these texts previous to the lesson. In class we will review these readings and discuss each of the topics in a participative manner to ensure the comprehension of the readings. During the in-class analytical sessions students will work in small groups to discuss
Tropical Diseases cases related to the readings to ensure that the student can differentiate between the tropical diseases and their key characteristics. Also, the instructor will make use of email to complement coursework; students will have to check email on a regular basis as we will be tracking current health care issues of the week. On the evaluation, students will have an opportunity to demonstrate what they have learned via two tests and a tropical medicine and diseases analysis paper. Students will work on a culminating project that analyzes and makes recommendations on a current health issue in Latin America.

**Topical Course Outline**

1. **Public Health and Sustainable Human Development**
   1.1. Ethics and tropical diseases
   1.2. Epidemiology
2. **Viral Diseases**
   2.1. HIV – Epidemiology in the tropics
   2.2. Viral hepatitis
   2.3. Dengue
   2.4. Rabies
   2.5. Rotavirus & other viral diarrhea
3. **Bacterial Infections**
   3.1. Tropical rickettsial Infections
   3.2. Bacterial enteropathogens
   3.3. Brucellosis
   3.4. Endemic treponematosis
   3.5. Leptospirosis
4. **Fungal Infection**
   4.1. Fungal infections
   4.2. Pneumocysts jirovecii infections
5. **Mycobacterial Infections**
   5.1. Tuberculosis
   5.2. Leprosy
6. **Protozoal Infections**
   6.1. Malaria
   6.2. American trypanosomiasis: Chagas disease
   6.3. Leishmaniasis
   6.4. Toxoplasmosis
   6.5. Intestinal Protozoa
   6.6. Trichomonas vaginalis
7. Helminthic Infections
   7.1. Schistosomiasis
   7.2. Food-born trematodes
   7.3. The filariases
   7.4. Soil transmitted helminths
   7.5. Echinococcosis
   7.6. Other cestode infections
8. Environmental Disorders
   8.1. Environmental stress
   8.2. Venomous and poisonous animal
   8.3. Plant poisons and traditional medicines
9. Nutrition
   9.1. Nutrition –Associated Disease
   9.2. Obesity in the tropics
10. Maternal/Child Health
    10.1. Obstetrics in the tropics
    10.2. Pediatrics in the tropics

Assessment and Grading Policy

The final grade for this course will be determined by the total percentage of credit awarded (100% maximum) for your participation and productivity as follows:

**Evaluation:**
- Midterm(s): 20%
- Final Examination: 40%
- Attendance & participation: 10%
- Quizzes: 20%
- Practical exercises: 10%
The following textbooks will be provided in pdf form

- Tropical Diseases A Practical Guide for Medical Practitioners and Students, Yann A. Meunier, MD, © Oxford University Press 2014

Student’s Responsibilities

- Drop/Add/Withdrawal Policy:

  Once a student is registered, it is his/her responsibility to attend the course, drop the course, or withdraw from the course. Dropping and withdrawing are distinct actions that impact your course enrollment status. In either case, a form with signatures is required.

- Academic Integrity:

  We are committed to a learning environment that embraces honesty. Faculty, students, and administrators share responsibility for maintaining this environment of academic honesty and integrity, accepting responsibility for all actions, personal and academic. Each member of our community is expected to read, understand, and uphold the values identified and described the Centers and Hospital statement of academic integrity, which will be handed out on the first day of classes.

  Plagiarism is considered a serious offense and will not be tolerated. If you have questions about using citations refer to the American Psychological Association (APA) manual or website. If you are unsure of the proper citation, contact your instructor.

- Attendance Policy

  Attendance and full class participation is important for our collaborative learning group in this pre-professional level course. Students are expected to attend all classes unless a reasonable absence is warranted. All absences are to be communicated to the instructor immediately upon the student realizing that he/she will not attend class.
Alternate assignments may be given to make-up the class time missed. Naturally attendance is part and parcel to the assessment given to your class participation (15% in this course.) Excessive absences will lower an individual’s grade.

The student acknowledges receipt of this syllabus and the information herein contained by continuing to attend this course. The instructor reserves the right to make changes to this syllabus if circumstances warrant such change. All major changes will be provided to the students in writing.

**Instructor’s Profile**

**Kenneth Rojas Calderon, MD.**

Dr. Rojas is a staff member of Hospital Clinica Biblica and he serve as Assistant Chief Medical Officer. Dr. Rojas obtained his medical degree from Universidad de Costa Rica and completed a Master Degree in Management of Health Services with Instituto Centroamericano de Administracion Publica and he also has completed training in Hospital Management with INCAE.

Dr. Rojas has been in charge of several projects, including Chief Medical Officer of Healthcare Areas that are administered by Hospital Clinica Biblica in a contract with Costarican Social Security giving primary care health access to more than 90 000 habitants of some regions of San José.

In Hospital Clinica Biblica, he had an active role in several projects and international certification process; he works in the development of expansion and improvement projects for the Hospital such as new services, electronic medical records. He also is in charge of a program guaranteeing a good patient experience and good relations between patients and the medical staff. He also is a key member of the committee that analyzes and approves new physician applications and reaccreditation processes and a member of the Hospital Medical Council.
Rodolfo Garbanzo Garvey, MD.

Rodolfo Garbanzo is the Chief Physician of Carpio and San Sebastian Health care area. He keeps an open dialogue with the leaders of the population regarding the relevant issues of the community.

, Costa Rica, and he has a Master degree in Healthcare Administration.