DESCRIPTION OF MODULE
The objective of the Pathophysiology BIO 271 International Module is to expose the student to the fact that countries around the world differ in the types of diseases that are most prevalent and in the diagnostic tools/methods used to treat these diseases and the availability of healthcare providers and treatment options in these countries compared to “modernized” first world countries. Over the course of many generations, the United States has witnessed the prevalence of various diseases/conditions, such as cleft palate, decrease significantly due to advanced medical technologies and the constant influx of quality healthcare providers. In addition, some diseases tend to be more heavily concentrated in certain regions of the world due to physical environments, geopolitical environments, presence/absence of war, and host susceptibility, making these countries less efficient in eradicating diseases that have become less frequent in the US. Students should realize that there are countries in the world that have much less exposure to healthcare and medicine than the US. Furthermore, students should come to the understanding that pathology is a worldwide discipline that can be applied across international borders.

Students taking Pathophysiology BIO 271 will be taking the course as a prerequisite for medical assisting, sonography, massage therapy, and the majority of health career professional programs. Therefore, internationalizing the course would expose a huge number of students to the applications of pathophysiology, disease prevalence, and treatments in an international setting.

OBJECTIVES

Students should be able to:

(A) Discuss the pathophysiology of major diseases affecting the body systems and available diagnostic treatments

(B) Discuss prevalence of diseases in major world regions (other than the US)
   (a) Sub-Saharan Africa
   (b) Eastern Europe and the form entities of the USSR
   (c) Asia (India and China)
   (d) Central America and Caribbean nations
   (e) South America

(C) Discover major discrepancies in the availability and quality of medical treatment in major world regions as compared to the US
   (a) Healthcare provider availability
   (b) Healthcare facility accessibility
   (c) Absence/presence of sterile medical environments
   (d) Patient ability to pay
   (e) Funding of medical research for preventative medicine

(D) Research various organizations that promote international healthcare and awareness
METHODOLOGY

Lectures/Discussions:
There will be lectures and discussions on the pathophysiology of diseases affecting all of the body systems with an emphasis placed on the pathophysiology of diseases affecting major world regions.

(1) Pathophysiology of Diseases
   (a) Respiratory disorders
   (b) Digestive disorders
   (c) Acute and Chronic Neurologic disorders
   (d) Endocrine disorders
   (e) Cardiovascular disorders
   (f) Blood and Lymphatic disorders
   (g) Musculoskeletal and Skin disorders
   (h) Reproductive system disorders
   (i) Fluid and Electrolyte imbalances

(2) Pathophysiology of Diseases in World Regions (examples)
   (a) AIDS in Sub-Saharan Africa
   (b) Tuberculosis in Eastern Europe
   (c) Malaria in the Caribbean
   (d) Chaga’s disease in South America
   (e) Cholera and Rabies in China
   (f) Hepatitis in India

A guest speaker, Dr. William Isler Wooten, III, a resident physician in pediatrics, will present a lecture discussing his medical mission trip to Guatemala during medical school and the types of patients and medical facilities that he observed while on his visit.

Students will write two research papers that will discuss topics related to pathophysiology of diseases in world countries and the quality of healthcare provided in those countries.

(1) Paper 1: Students will choose a disease that is more prevalent in a third world country than in the US and write 2-3 pages about the pathophysiology, etiology, signs/symptoms, and treatments available for that disease in its host country.

(2) Paper 2: Students will choose three foreign countries and research the quality of healthcare in those countries compared to the US. Emphasis will be placed on the accessibility of the clinics, availability of quality healthcare providers, and quality of medical treatments and medicines dispensed. Students will utilize data provided by the CDC, the WHO, and Doctors without Borders in performing their research.
Students will furthermore gain insight about world diseases through case studies, audio-visuals, and handouts that will be given to students and will correspond to the topics of pathophysiology. The background information for these assignments will come heavily from the text by Gould in addition to NC Live (research database) and videos that are accessible online and through the library at the college.

EVALUATION

Students are evaluated on a 7-pt scale since this course is a prerequisite for allied health professions.

A = 93-100
B = 85-92
C = 77-84
D = 70-76
F = <70