



## Iowa Wesleyan University

NUR/WS 380: Global Health Care: Biology, Medicine, and Public Health in the Tropics

**Credit Hours:** 3 credit hours

**Dates: Course offered over two weeks in winter and summer programs**

### **Required Text:**

All required reading materials will be made available in electronic format on Google classroom. Students interested in pursuing further studies in global health are encouraged to purchase the following textbook: Skolnik, R. (2021). *Global Health 101* (4th ed.). Burlington, MA: Jones & Bartlett Learning.

### **Iowa Wesleyan University Mission Statement**

Iowa Wesleyan University is a transformational learning community whose passion is to educate, empower, and inspire students to lead meaningful lives and careers. Iowa Wesleyan University is a historic, faith-inspired, four-year university. The university is affiliated with the United Methodist Church, with which it shares a commitment to spiritual values, social justice, and human welfare.

### **IW Life Skills**

- **Communication:** Students will show proficiency in acquiring, processing, and transferring information in a variety of ways, including written communication, oral communication, and information literacy.
- **Critical Reasoning:** Students will strategically apply critical thinking and problem-solving skills.
- **Civic Engagement:** Students will develop the knowledge, skills, values, and motivation to actively engage in communities to promote social justice and human welfare.

### **Course Description**

This course explores the intersections of economics, health, medicine, and social development in the Tropics, with Belize as the focus. The objective of this course is to provide students with knowledge and insight into epidemiology, diagnosis, therapy, and prevention of tropical diseases. Students will learn to situate health in its broader social, economic, and political context and acquire a basic understanding of the intimate, bi-directional relationship between health and development processes. Instruction focuses on field-based, hands-on learning. Lectures, readings

from primary literature, and discussions are also integral components of the program and provide the conceptual framework for discussion, analysis, and interpretation of field observations and findings.

### **Additional Information about the Course**

This course aims to introduce students to key issues in the field of global health. Students will be introduced to a range of contemporary topics within the context of low-, middle-, and high-income countries, including: health indicators; infectious and non-communicable diseases; poverty, education and health; reproductive health; child and adolescent health; the aging population; public health and health systems; human rights-based approach to health; community-based health approaches; philanthropy and humanitarian assistance; and global health ethics. Course content is presented from a biomedical, psychosocial, and policy perspective. Students will be encouraged to think about the role of citizens, civil society, and key institutions in addressing health issues globally and in Belize specifically.

### **Course Goals and Learning Objectives**

By the end of the course, the student should be in a better position to:

- Describe the current challenges in global health and the state of health in Belize
- Define key concepts and terms relevant to the field of global health
- Explain how population dynamics and development processes influence population health
- Apply concepts and theories learned in class to low-, middle-, and high-income countries
- Recognize biomedical, psychosocial, and policy approaches to health
- Identify health concerns globally and in Belize
- Evaluate the social determinants of health and the broader socio-economic and political context of health
- Assess the individual and collective motivation to respond to health problems globally and in Belize

In addition, the following Learning Outcomes will be addressed or assessed as part of the course:

#### **Communication Skills**

- Oral Communication: Students will deliver a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.
- Information Literacy: Students will show the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand.

#### **Critical Reasoning**

- Critical Thinking: Students will design, evaluate, and implement a strategy to answer open-ended questions or achieve desired goals.

- Problem Solving: Students will comprehensively explore issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

### Civic Engagement

- Civic Engagement: Students will demonstrate their ability to make a difference in the civic life of communities and develop the combination of knowledge, skills, values and motivation to make a difference in the quality of life of those communities.
- Global Learning: Students will become informed, open-minded, and responsible people who are attentive to diversity across the spectrum of differences, seek to understand how their actions affect both local and global communities, and address the world's most pressing and enduring issues collaboratively and equitably.

### **Course Policies**

#### **Attendance and Participation Policy**

In accordance with the IW Catalog and the IW Undergraduate Student Attendance Policy, students are expected to attend all class meetings for which they are registered. This is regarded as a matter of individual student responsibility. As mandated by federal law, all faculty members are expected to keep accurate records of class attendance. The only excused reasons for absences will be illness that impairs ability to attend and function within the classroom setting, unavoidable personal emergency, or participation in a University-sponsored event.

Students are expected to attend all class sessions on all days of class. It will be the responsibility of the student to contact the course instructor, preferably before the absence, to provide the appropriate documentation and verification for the reason for the absence, and to make arrangements with the course instructor for missed work. Students missing a class session without following this protocol will be subject to limited participation in hands-on practice at the instructor's discretion.

Regardless of the reason for absences, absences from each class session will count toward the percentage of allowed absences. A "class" is one class session—some days, there are multiple class sessions. Students are responsible for all missed class material. Students may be subject to limited participation in hands-on practice at the instructor's discretion if they have missed the underlying material needed to safely perform the task at hand.

A warning to the student and student's home university point person may result if the student is absent 12.5% of the total number of class meetings. If a student is absent 25% of the total number of class meetings, the course instructor must notify the Registrar's Office which will initiate the withdrawal of the student from the class with a grade of WF (Withdrawn-Fail).

## **Grading Scale**

|           |           |           |              |
|-----------|-----------|-----------|--------------|
| <b>A</b>  | 93-100%   | <b>C</b>  | 73-76.99%    |
| <b>A-</b> | 90-92.99% | <b>C-</b> | 70-72.99%    |
| <b>B+</b> | 87-89.99% | <b>D+</b> | 67-69.99%    |
| <b>B</b>  | 83-86.99% | <b>D</b>  | 63 -66.99%   |
| <b>B-</b> | 80-82.99% | <b>D-</b> | 60- 62.99%   |
| <b>C+</b> | 77-79.99% | <b>F</b>  | 59 and below |

## **Assignments and Points**

Your course grade will be determined as follows:

Writing Assignment: 35%  
In-class test: 20%  
Final Paper: 20%  
Attendance, Participation: 25%

**Attendance and Participation: 25%** Determined from the beginning to end of course.

Checklist/comments format to be used by the professor to record attendance and participation; template used will be posted on CELA e-campus in advance.

**Round Table Discussion (Assignment Part 1): 20 %**

**Written Position Statement (Assignment Part 2): 15%**

Discussion in-class on **Day 5**.

\*Topic will be posted on CELA e-campus in advance.

Corresponding Written Position Statement on discussion due as a single MS WORD document via email by **date set at start of class**.

**Test In-Class: 20%**

Test in-class on the **last day**.

Material covered by the professor in lectures. Tips will be provided in class and/or via CELA e campus.

**Final Paper on Selected Topic from Field Visit: 20%**

Due as a single MS WORD document via email by date set at the start of course.

## **DESCRIPTION OF ASSESSMENT METHODS**

### **Participation and Attendance**

This course requires students to think critically about the literature and current events and apply information to national and international contexts. Students are expected to attend all classes, field visits, and course-related events.

The professor will aim to promote a comfortable learning environment to facilitate discussions. Students should complete class readings in advance and are expected to actively participate in class discussions. The professor will use a checklist/comments format to record attendance and participation. (The template will be posted on CELA e-campus.) During field visits, students may be assessed on their attentiveness, the nature of questions they ask, their participation in hands-on-activities, engagement in teamwork, awareness of institutional practices, etc. Students are encouraged to take notes during/after field visits.

### **Test**

The test will consist of short-answer and multiple-choice questions. The test will be based on the content covered by the professor. The test will give students an opportunity to reflect on the course content.

### **GRADING RUBRICS**

Marking guides (rubrics) for all assessment methods will be posted on CELA e-campus. Written assignments will be graded based on quality/depth (approximately 80%) and style/grammar (approximately 20%). Where applicable, students should provide relevant background information regarding health-related concepts/problems and affected populations.

### **LATE WORK POLICY, REQUESTS FOR DEFERRALS, AND ABSENCES**

Please inform the professor as soon as possible if you are unable to meet the assignment deadlines due to exceptional medical or personal circumstances.

### **Time and Commitment**

Class sessions and volunteer activities will take up a large portion of your day. This course will cover a large volume of terms, techniques, and information. We expect that you will find the time you invest to be productive and helpful, both in this class and going forward.

### **Supplies**

We have the opportunity to have this course in a field setting that allows for hands-on observation, practice, and study. This setting provides a unique hands-on opportunity to see what you are learning in practice. Each student should be prepared for a variety of weather and field conditions. When visiting NGOs or government hospitals, offices, or clinics, students are expected to be professional in appearance (no t-shirts, flip-flops, shorts, or spaghetti strap tops). For other settings, students should also have rain gear, a water bottle, a flashlight with extra batteries, bug repellent, sunscreen, and anti-itch ointment. Please refer to the equipment list provided with pre-course paperwork and ask if there are any questions/concerns.

### **Technology**

You are welcome to use a laptop to take notes in class if you prefer. It is certainly not required. Please ensure that your phone is off during class sessions.

## **Diversity and Disability Statement**

Iowa Wesleyan values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, please notify the professor as soon as possible. Students with disabilities are eligible for accommodations to help remove learning barriers in the course.

## **Academic Honesty**

Iowa Wesleyan has developed a strict policy to deal with those students who commit acts of academic dishonesty such as plagiarism and/or cheating. Such acts will not be tolerated in any form by the faculty and staff and will carry stiff penalties. For more information regarding this policy, please consult the most current version of the IW Catalog.

## **GLOBAL HEALTH: Biology, Medicine, and Public Health in the Tropics**

### **COURSE SCHEDULE (subject to change)**

| DAY | TOPIC   | READINGS   |
|-----|---|--|
| 1   | <b>Introduction to the course</b><br><br><b>Introduction to Global Health and Development</b> <ul style="list-style-type: none"><li>• Determinants of global health; definitions and concepts</li><li>• The current state of the world's health</li></ul><br><b>Field Visits:</b> Private hospital and community clinic<br><br><b>Activity:</b> Discussion with health professionals and staff to learn about services offered, the most common health conditions addressed, referrals, response to health-related emergencies. | 1. WHO, 2019, <i>The Determinants of Health</i><br><br>2. UN, 2019, <i>The Sustainable Development Goals</i><br><br>3. Murray, C. J. L. (2015). Shifting to sustainable development goals—Implications for global health. <i>The New England Journal of Medicine</i> , 373(15), 1390-1393.<br><br>4. PAHO-Belize, 2018, <i>2018 In Review: The Year's Top Health Stories from the Americas</i> |

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| 2 | <p><b>Health Indicators, Population Dynamics, and Population Health</b></p> <ul style="list-style-type: none"> <li>• Understanding Global Health Data and Health Trends</li> </ul> <p><b>Field Visit:</b> Farmer's market</p> <p><b>Activity:</b> Creating a meal (e.g., \$20 to create a meal for a person with type 2 diabetes)</p> <p>—</p> <p><b>Evening Guest Speaker:</b></p> <ul style="list-style-type: none"> <li>• Overview of Belizean health system, including traditional medicinal healing and Western medicine</li> </ul>  | <ol style="list-style-type: none"> <li>1. PAHO, 2017, <i>Health in the Americas+ : Belize Country Profile</i>.</li> <li>2. WHO, 2019, <i>Belize: Statistics</i>.</li> <li>3. University of Washington, Institute for Health Metrics and Evaluation (IHME), 2019, <i>Belize</i>.</li> </ol>  |
| 3 | <p><b>Infectious Diseases</b></p> <ul style="list-style-type: none"> <li>• Disease patterns</li> <li>• Leading causes of death in the global context and Belize</li> <li>• Disease surveillance in Belize and globally (e.g., international health regulations)</li> </ul> <p><b>Guest Speaker:</b></p> <ul style="list-style-type: none"> <li>• Overview of vaccination in Belize and approach to addressing infectious diseases (old/new)</li> <li>• <b><i>Selected infectious diseases and case studies to be covered.</i></b></li> </ul> <p><b>Field Visit:</b> Vector Control Unit of San Ignacio Hospital</p> <p><b>Activity:</b> Learning about vector-borne illness, mosquito control, water sampling, clean water projects, etc.</p> | <ol style="list-style-type: none"> <li>1. WHO, 2018, <i>Belize – Malaria</i>.</li> <li>2. WHO, 2019, <i>Belize – TB</i>.</li> <li>3. Ministry of Health Belize, 2019, <i>HIV/AIDS</i>. 4. Hastings, A. K., &amp; Fikrig, E. (2017). Zika virus and sexual transmission: A new route of transmission for mosquito-borne flaviviruses. <i>Yale Journal of Biology and Medicine</i>, 90, 325-330.</li> </ol> |

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| 4 | <p><b>Non-Communicable Diseases and Injuries</b></p> <ul style="list-style-type: none"> <li>● Disease patterns</li> <li>● Leading causes of death in the global context and Belize</li> <li>● Disease prevention</li> <li>● <b><i>Selected non-communicable diseases and case studies to be covered.</i></b></li> </ul> <p><b>Field Visit:</b> Public hospital</p> <p><b>Activity:</b> Discussion with health professionals and staff to learn about available health services, management of chronic health conditions, primary health care, specialist services, etc.</p>  | <p>1. Ezzati, M., et al., (2018). Acting on non-communicable diseases in low- and middle-income tropical countries. <i>Nature</i>, 559, 507-516</p>  |
| 5 | <p><b>Assignment Part 1: Round Table Discussion in Class</b></p> <p><b>Assignment Part 2: Written Position Statement</b></p> <p><b>Social Determinants of Global Health</b></p> <ul style="list-style-type: none"> <li>● Poverty, education, the economy, and the digital divide</li> </ul> <p><b>Belize's Indigenous Communities</b></p> <ul style="list-style-type: none"> <li>● Traditional and cultural attitudes and approaches to health and disease</li> </ul> <p><b>Guest Speaker:</b></p> <ul style="list-style-type: none"> <li>● Discussion about indigeneity and health, including learning about the nature of traditional medicine, role of traditional healers, integration of traditional medicine and Western medicine, etc.</li> </ul> | <p>1. de Andrade, L. O. M., et al. (2015). Social determinants of health, universal health coverage, and sustainable development: Case studies from Latin American countries. <i>Lancet</i>, 385, 1343–1351.</p> <p>2. Waldrum, J. B., et al. (2015). Latent and manifest empiricism in Q'eqchi' Maya healing: A case study of HIV/AIDS. <i>Social Science &amp; Medicine</i> 126, 9- 16.</p> <p>3. Optional: Waldrum, J. (2015). <i>Healthy People, Beautiful Life: Maya Healers of Belize</i>.</p> |

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| 6 | <p><b>Reproductive Health: Women's Health, Family Planning</b></p> <p><b>Child and Adolescent Health</b></p> <p><b>Guest Speakers:</b> Traditional Birth Attendant, Community Health Worker, and/or Maternity Ward Nurse</p> <p><b>Field Visit:</b> Visit to community led by community health worker</p> <p><b>Activity:</b> Discussion about contraceptives, family planning initiatives, adolescent sexual health, etc.</p>   | <p>1. Lu, M., et al. (2015). Putting the "M" back in the maternal and child health bureau: Reducing maternal mortality and morbidity. <i>Maternal and Child Health Journal</i>, 19(7), 1435-1439.</p>   |
| 7 | <p><b>Health Systems and Global Public Health</b></p> <ul style="list-style-type: none"> <li>• The human rights-based approach to health</li> <li>• Global health ethics</li> </ul> <p><b>Community-Based Health Approach and Community Health Workers</b></p> <p><b>Needs Assessment, Program Implementation, and Program Evaluation</b></p>  | <p>1. Mills, A. (2014). Health care systems in low- and middle-income countries. <i>The New England Journal of Medicine</i>, 370, 552-557.</p> <p>2. WHO &amp; Office of the High Commissioner for Human Rights (OHCHR), 2009, <i>A Human Rights Based Approach to Health</i></p> <p>3. Uzwiak, B., &amp; Curran, S. (2016). Gendering the burden of care: Health reform and the paradox of community participation in Western Belize. <i>Medical Anthropology Quarterly</i>, 30(1), 100-121.</p> |
| 8 | <p><b>Health Systems and Global Public Health</b></p> <p><b>Field Visit:</b> Belize City to meet with national organizations (e.g., National AIDS Foundation, National Drug Council, PAHO and UNICEF offices)</p> <p><b>Activity:</b> Learning about policies governing health care access, disease prevention, health promotion, and quality of life; discussing what policies address traditional medicine and how it is integrated with modern Western medicine, etc.</p> |   |

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| 9  | <p><b>Environment and Health</b></p> <ul style="list-style-type: none"> <li>● Climate change</li> <li>● Food security</li> <li>● Natural disasters</li> <li>● Humanitarian assistance</li> </ul> <p><b>Guest Speaker:</b> Ministry of Agriculture</p> <ul style="list-style-type: none"> <li>● Climate change and its impact on agriculture and food security in Belize</li> </ul> <p><b>Field Visit:</b> Caribbean Climate Change Centre</p> <p><b>Activity:</b> Discussion regarding the effect of climate change on Belize and the Caribbean</p> <p><b>Field Visit:</b> Belize Agricultural Health Authority (BAHA) Lab</p> <p><b>Activity:</b> Discussion about the link between animal and human health, including the kinds of animal-related issues that threaten human health in Belize</p> | <ol style="list-style-type: none"> <li>1. PAHO. (2017). <i>Health in the Americas+: Climate Change and Health.</i></li> <li>2. PAHO. (2019). <i>Sustainable Food Systems for Healthy Eating.</i></li> </ol>   |
| 10 | <p><b>In-Class Test</b></p> <p><b>Role of Key Institutions in Global Health</b></p> <p><b>Working in Global Health and Emerging Issues in Global Health (e.g., Telemedicine, AI)</b></p> <p><b>Course Wrap-Up and Course Evaluation</b></p>   | <ol style="list-style-type: none"> <li>1. Sandhu, S., et al. (2017). A focus on the opportunities and challenges of international telemedicine. <i>Glaucoma Today</i>, 29-32.</li> <li>2. Key Actors in Global Health - <i>Organizations listed in lecture notes</i></li> </ol> |