

**THOMAS ADEWUMI UNIVERSITY OKO**  
**COURSE OUTLINE**

Faculty	Computing and applied science	
Department	Biological Sciences	
Course title	<b>MICROBIOLOGY AND GLOBAL HEALTH</b>	
Year of study	2	
Course code	MCB 217	
Credit hours	2	
Contact hours	30	
Mode of delivery	CLASSROOM LECTURES	
Mode of assessment		WEIGHT%
Continuous assessment		30%
Final examination		70%
Total		100%
Course lecturers and Instructors	MRS F.J. OLAITAN-LECTURER	
Course description	<p>Globally, microorganisms rule the world. They can halt the activities of man completely if they are not put in check. The activities of man can increase their spread and dissemination. This can lead to infections and diseases that can cause destruction of lives and increased global burden.</p>	
Course objectives	<p>This course will lead to an understanding of:</p> <ol style="list-style-type: none"> <li>1. The relevance of Microbiology in Global Health.</li> <li>2. Ways by which pathogenic diseases are transmitted and the mechanisms of infections in global health.</li> <li>3. Measures taken to control and eradicate infectious diseases in the context of solving real-world problems in Global health. (Vaccination, Physical barriers, targeting vectors, Detection of infected individuals, Roles of different hosts, Effectiveness of treatment, etc.)</li> <li>4. what cross-border health mean</li> <li>5. Explain the regional, societal, economic and political Impacts on Global Health Microbiology.</li> <li>6. The neglected tropical diseases.</li> <li>7. Travel health and its impact on infections and disease spread</li> </ol>	

	8. The roles of Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.)
Learning outcomes	On completing the course, students will be able to: 1. Explain the concepts of Microbiology in Global Health. 2. Understand pathogenic diseases' transmission and mechanisms of infections in global health. 3. Describe the modes of controlling and eradicating infectious diseases in the context of solving real-world problems in Global health. 4. Discuss cross-border health. 5. Highlight the regional, societal, economic and political impacts of cross-border health on Global Health Microbiology. 6. describe Neglected tropical diseases and their impact globally. 7. discuss the concept of Travel health. 8. understand the contributions of Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.)
Teaching and learning	The class will meet for two hours a week. It will be strictly classroom lectures.
Detailed course content	Concepts of Microbiology in Global Health. Understanding pathogenic diseases' transmission and mechanisms of infections in global health. Control and eradication of infectious diseases (Vaccination, Physical barriers, targeting vectors, Detection of infected individuals, Roles of different hosts, Effectiveness of treatment, etc.) in the context of solving real-world problems in Global health. Cross-border health. Regional, Societal, Economic and Political Impacts on Global Health Microbiology. Neglected tropical diseases. Travel health. Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.)
Course content sequencing	
Weeks	
Week 1	Concepts of Microbiology in Global Health.
Week 2 & 3	Understanding pathogenic diseases' transmission and mechanisms of infections in global health.

Week 4&5	Control and eradication of infectious diseases (Vaccination, Physical barriers, targeting vectors, Detection of infected individuals, Roles of different hosts, Effectiveness of treatment, etc.) in the context of solving real-world problems in Global health. Continuous assessment 1
Week 6 & 7	Cross-border health. Regional, Societal, Economic and Political Impacts on Global Health Microbiology.
Week 8 & 9	Neglected tropical diseases.
Week 10	Travel health.
Week 11	Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.) Continuous Assessment 2
Week 12	Revision
Recommended reading material	
<ol style="list-style-type: none"> <li>1. Joanne Willey, Kathleen Sandman and Dorothy Wood (2020). Prescott's Microbiology, 11<sup>th</sup> Edition</li> <li>2. Lance Saker; Kelley Lee; Barbara Cannito; Anna Gilmore; Diarmid Campbell Lendrum(2004). Globalization and infectious diseases: a review of the linkages. Special topics in social, economic and behavioural research. UNDP/WORLD BANK/ WHO Special programme for research and training in Tropical diseases.</li> <li>3. Stephen O'Brien (2009). The Neglected Tropical Diseases: A challenge we could rise to – will we? House Of Commons The All-Party Parliamentary Group on Malaria and Neglected Tropical Diseases.</li> </ol>	

Course code: MCB 217

Course title: MICROBIOLOGY AND GLOBAL HEALTH

Preamble: Globally, microorganisms rule the world. They can halt the activities of man completely if they are not put in check. The activities of man can increase their spread and dissemination. This can lead to infections and diseases that can cause destruction of lives and increased global burden. More knowledge is needed to understand how we spread these infections and measures that we can use in mitigating the dissemination.

Specific course objectives/learning outcomes.

The course will enable the understanding of the following:

1. Explain the concepts of Microbiology in Global Health.
2. Understand pathogenic diseases' transmission and mechanisms of infections in global health.

3. Describe the modes of controlling and eradicating infectious diseases in the context of solving real-world problems in Global health.
4. Discuss cross-border health.
5. Highlight the regional, societal, economic and political impacts of cross-border health on Global Health Microbiology.
6. Describe Neglected tropical diseases and their impact globally.
7. Discuss the concept of Travel health.
8. Understand the contributions of Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.)

Learning activities/Course delivery methods

Lectures: detailed content of course are taught in class

Laboratory Sessions: the practical application of the course are demonstrated in the laboratory

Course content: Concepts of Microbiology in Global Health. Understanding pathogenic diseases' transmission and mechanisms of infections in global health. Control and eradication of infectious diseases (Vaccination, Physical barriers, targeting vectors, Detection of infected individuals, Roles of different hosts, Effectiveness of treatment, etc.) in the context of solving real-world problems in Global health. Cross-border health. Regional, Societal, Economic and Political Impacts on Global Health Microbiology. Neglected tropical diseases. Travel health. Global health agencies (WHO, UNICEF, UN, Bill and Melinda Gates Foundation, etc.).