

M/BIOLOGY 235
DISEASE AND THE DEVELOPING WORLD
FALL, 2019
REVISED SYLLABUS

INSTRUCTOR INFORMATION

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Office Hours: Mondays and Thursdays, 2:30-3:45 and by appointment.

COURSE DESCRIPTION

An examination of the biology of disease in developing countries in Africa, Asia, Latin America and the Caribbean. This course will explore the biology of infectious diseases and the influences of diseases on history and culture of these regions as well as the social and economic impact of disease for contemporary societies. Topics addressed will also include prospects for change through current scientific research on treatment and control.

WHAT MAKES THIS COURSE MULTICULTURAL?

This course addresses four areas relevant to the multicultural core. These are:

1. Examination of non-Western examples of science
2. Examination of contemporary issues in Asia, Africa and Latin America for which scientific knowledge is relevant
3. Examination of bias in Western science in the investigation of topics important to the non-Western world
4. Examination of contemporary science and scientific communities in Asia, Africa and Latin America

LEARNING OUTCOMES

TEXTS, OTHER READINGS AND OTHER COURSE MATERIALS

Required text: Jacobsen, K H. Introduction to Global Health, third edition. Sudbury, MA: Jones & Bartlett. 2018. Use of earlier editions is not advised because of extensive organizational changes. We will not use the online supplements, and I do not recommend purchasing the access code.
Canvas: Additional articles, case studies, links to videos and other valuable resources, and some lecture notes will be available on Canvas. You will need to bring copies (either electronic or paper) of some of these with you to class. In addition, you may have some printing and copying costs for the writing assignment.

ACCOMMODATIONS

SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities. Accommodations will also be made for medical conditions related to pregnancy or parenting. Students should consult with the Office of Disability Services as early as possible in the semester.

Accommodations for English language learners: Individuals who have been using English as a primary language of instruction for 6 years or fewer and are actively working to improve English fluency may receive extra time on in-class tests and online quizzes. [Please see me for assistance if this applies.](#) Assistance with English fluency is available from the ESOL office; please contact Katherine Menec (kmenec@geneseo.edu) for assistance.

DIVERSITY AND INCLUSION

Global health is about people as well as about diseases, and the use of inclusive language contributes to creating an environment conducive to learning for everyone. This will include use of individuals' preferred names and pronouns, use of group descriptors preferred by members of that group, and using language that is people-centered and non-discriminatory. Especially critical in the public health context is the use of non-judgmental descriptions of human behavior. Inclusive language is dynamic and socially constructed, and requires communication as individuals learn from each other.

EVALUATION

Tests, 3 of 4 (can drop lowest)	48%
Final	16%
Group project	16%
Day-to-Day (quizzes, homework, in-class participation)	20%
Total	100%

ADDITIONAL INFORMATION ABOUT EVALUATION

Overview: Below is a brief description of the quizzes, homework, exams, and writing assignment that contribute to your grade. Additional information about the major writing assignment will be provided on separate handouts provided both in class and in Canvas.

Day-to-Day: Coming to class and keeping up with the reading provide an essential foundation for success on both the tests and major writing assignments. Work in class does not duplicate work outside class, and good grades on quizzes are indicative only of a good foundation, not mastery of the subject matter. Participation points are available only to those attending class, with NO option for make up, regardless of the reason for absence. Occasional absences will not affect your grade, but frequent absences will. See policy section regarding absences. The day-to-day category will include quizzes, homework and in-class work products. You will typically find out each week what is due the following week.

Reading quizzes: Reading quizzes provide a check of your understanding of text chapters. These must be completed before the initial discussion of the chapter in class.

In-class tests: These tests include multiple choice, multiple select, justified true/false, and short answer or short essay questions. Many questions will test your ability to apply the information in the context of a scenario, and in some cases, may require learning about the region or cultural context. Some questions will require you to analyze or evaluate information. Some components of the test may be online and use the Respondus lockdown browser.

Paper: You will work with a partner to write a formal paper describing an issue in a particular country context and evaluating one or more possible solutions. Separate instructions will be provided.

TENTATIVE SCHEDULE		
8/26	8/28	8/30
	1: What is Global Health?	1: Prevention science
9/2	9/4	9/6
Labor Day, no class	Health Transitions	2: Health metrics
9/9	9/11	9/13
2: Setting priorities	3: Socioeconomic determinants of health	3: Biological impacts of poverty
9/23	9/25	9/27
4: air, garbage	4: biodiversity, ecological change	5: culture & health -- traditional medicine
9/30	10/2	10/4
5: human rights and research ethics	5: special & vulnerable populations	11: Maternal mortality & family planning
10/7	10/9	10/11
11: infant health & mortality	12: undernutrition, food security	12: Overnutrition
10/14	10/16	10/18
Fall Break, no class	TEST	8: HIV
10/21	10/23	10/25
8: TB	8: HIV & TB, continued	18: child survival
10/28	10/30	11/1
9: Diarrheal illness	9: respiratory infections & influenza	9: Vaccination
11/4	11/6	11/8
10: Malaria	10: Neglected tropical diseases	Catch-up and review
11/11	11/13	11/15
TEST	13: cancer biology, epidemiology & risk factors	13: cancer diagnosis & treatment
11/18	11/20	11/22
14: CVD – heart attacks	14: CVD – strokes, hypertension	15: Diabetes and other non-communicable diseases
11/25	11/27	11/29
15: Other non-communicable diseases; PAPERS DUE	Thanksgiving break, no class	Thanksgiving break, no class
12/2	12/4	12/6
19: Aging	19: Aging	TEST
Dec. 9 Review	Dec. 11 8:00-10:30	
	FINAL EXAM	

NOTE: Schedule is subject to change. Dates of tests will not change, but topics covered may be adjusted.

IMPORTANT POLICIES

Communication: Set up Canvas to provide daily updates via email or text in order to ensure that you receive any updates or changes to the schedule. E-mail is usually the fastest way to get in touch with me. Please include your name (not just your email address) and the course name or number in all e-mails sent to me because of the very large number of students with whom I interact in the course of my job. In order to maintain work-life balance, I reserve the option to delay responding to emails outside of business hours until the next business day.

Professional behavior in class: My goal is to maintain an environment conducive to learning for all participants. Your active participation in class activities contributes not only to your own learning but also to the learning of others in the class. Please plan to arrive on time and stay throughout the class. Use laptops, cell phones and tablets only for class-related purposes during the lecture period.

Missing lecture, making up quizzes or homework: At least one quiz and homework assignment will be dropped. Because the function of these is to prepare for class, once the deadline has passed, there is no backtracking to complete earlier assignments. If you know you will miss class, you may be able to submit some assignments early. If you must be absent from all of your classes for an extended period of time and are working with the Dean of Students, Dr. Sancilio, your day-to-day grade can be adjusted. Similarly, if you have an attendance-related accommodation and are working with the Disability Services Office, please see me to discuss your situation.

Appealing grades: Any graded work may be submitted for re-evaluation along with a written appeal. Appeals should be submitted promptly, within one week of when the work is returned to you. The appeal should contain a brief written explanation of your concerns, including your understanding of the test question or assignment directions and why you believe your work meets the requirements. When you turn in the work for appeal, we will schedule a conference to discuss it.

Explanation of final grades: Grades are determined using the scale presented below, almost always without any adjustment or curve. There are no quotas for particular letter grades, and helping others can only help you, and cannot hurt your grade in any way. The point distribution is as follows:

A (93%)	B+ (87-89%)	B- (80-82%)	C (73-76%)	D (60-69)
A- (90-92%)	B (83-86%)	C+ (77-79%)	C- (70-72%)	E (<60)

Note that scores will be rounded up or down to the nearest whole number.

FOR YOUR CONSIDERATION

Class format: Class time will include some lecture, but also some small group and full class discussion. Active learning approaches are well-documented to increase learning over lecture alone. You will learn the most from discussion-centered classes if you have completed any preparatory assignments, and if you listen actively. If you are new to this format in a biology course, you may have trouble initially assembling these pieces into a complete picture for studying. Please see me if you find you are having difficulty in assembling a coherent picture of a topic.

Difficult subject matter: In this course, you will see graphic images and read or hear vivid descriptions of human suffering, and confront bleak statistics on global health. Firsthand accounts, images and video bring unfamiliar topics to life for most students, but some people may find them disturbing. In addition, some topics for class discussion may be uncomfortable for some students. Please let me know if you have concerns about discussion of certain topics. Respect for others, both within the class and beyond, is vital to maintaining an environment conducive to learning. If you are uncomfortable in class, please discuss your situation with me.

Diverse viewpoints: Readings and class activities present diverse viewpoints, and undoubtedly you will disagree with some. Students in the class will also hold a variety of opinions about subjects we will address. As above, respect for others is critical in maintaining an environment conducive to learning for all. If you are uncomfortable in class discussions, please discuss this with me.

Interdisciplinary nature: This course addresses biological issues that are inherently interwoven with social, economic and political issues. Studying the cultural context of science and of issues informed by science is an integral part of the course, and requires a more interdisciplinary mindset. At the same time, this is a science course, and we will spend much of our time focused on Western scientific ideas and methods that are now in widespread use throughout the world.

Evolution: The Theory of Evolution provides the central explanatory framework for all of biology, and will be a consistent theme running through Biology 235. I welcome the opportunity to discuss your questions or concerns about evolution (including questions about religious belief) during office hours or individual appointments.