

BIOL 125N

Society and Disease Management

Sample Syllabus

Description

Society and Disease Management is an investigation of how infectious diseases spread through populations and the economic and societal impacts of these diseases. An examination of the biological mechanisms of diseases and how disease burden is managed in communities will guide the rationale for local and global health approaches to managing disease interventions. Class foundations include topics from biology, economics, systems theory, and health policy. Assessments will incorporate applications from all of these fields.

Objectives

By the end of this course, students should have gained sufficient knowledge to:

- Explain the biological mechanisms by which humans respond to pathogens (bacteria, virus, protist) and typical treatment regimens.
- Summarize the historical biological and cultural context relating to the development and use of vaccines and of antibiotics.
- Identify the most pressing health issues related to human diseases around the globe and evaluate these issues from cultural and economic viewpoints.
- Assess the present economic and cultural issues related to public health management strategies including plausible frameworks for disease prevention or containment.
- Read and evaluate popular scientific, economic, cultural, and news articles to make informed decisions relating to their personal health and health of the larger community.

Course Schedule

Week	Topic
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1	Course orientation activities and introduction to the course. Meet your classmates review course modules.
2	Discuss the Global Goals website; identify the layers and players involved in health care and those who work to improve health conditions; example disease study - measles.
3	We focus on management, leadership, social entrepreneurship, and economics. How do philosophy, political theory, and fit into the practice of cultural disease management? For those whose life needs have been met, are they morally obligated to be optimistic?
4	What is systems thinking? Practice this at the personal and larger levels.
5	Basics of the human immune system — innate, adaptive, and passive immunity; the 10 oldest known human diseases, false remedies of the past and present.
6	Viral diseases and vaccinations – Smallpox as the story of success; explore viruses of today-HIV, Ebola, Zika.; create an awareness campaign poster.
7	Vaccination production, vaccination rates in the US, Vaccination myths; the anti-vaccine movement – national and international
8	Bacterial diseases –Introduction to historical evidence of bacterial disease in humans, social and economic issues relating to Black Death, tuberculosis, and cholera, bacterial vaccines, and future concerns about bacterial diseases.
9	Antibiotics & antimicrobials, their classification, how they work, and issues relating to antibacterial resistance.
10	Diseases caused by protists - history of malaria, treatment, epidemiology, and vaccines.
11	What is disease burden? How have infectious diseases shaped human populations?
12	Systems thinking revisited - tackle an issue on the national or global level.
13	Final course portfolio project.

Materials

All readings and other course materials will be provided in our Canvas course.

Expectations

This course is really one of those "you get out of it what you put into it" type of experiences. We do not aim to change your opinions but we do hope to help you consider national and international health issues at a deeper level than if you had not taken this course. Discussion boards will be a large part of this class. There will also be reflection/reaction essays to complete, as well as short videos and interactive activities from various websites for which you can earn points toward your final point total. We ask you to note topics or websites of interest as you research the various topics for this course. We strongly encourage suggestions for topics, assignments, and projects from you!

Grading

Activity	%	Description
Short Reflections	25%	These will be assembled into a portfolio for you to use as a personal reference outside of this course
Discussion Forums	50%	Where you will post your thoughts and then reply to those of other group members
Online Activities	15%	Includes website animations
Quizzes	10%	Can be completed in Canvas

Academic Integrity

Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code

of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts.

Academic integrity includes a commitment by all members of the University community not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Accommodating Disabilities

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The [Student Disability Resources \(SDR\) website](#) provides contact information for every Penn State campus . For further information, please visit [Student Disability Resources website](#).

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [See documentation guidelines](#) . If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early as possible. You must follow this process for every semester that you request accommodations.

Counseling and Psychological Services

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

- [Counseling and Psychological Services at University Park \(CAPS\)](#): 814-863-0395
- [Counseling and Psychological Services at Commonwealth Campuses](#)
- Penn State Crisis Line (Available 24 hrs, 7 days a week): 877-229-6400
- Crisis Text Line (Available 24 hrs, 7 days a week): Text LIONS to 741741

Educational Equity / Report Bias

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