

SEMESTER AT SEA COURSE SYLLABUS

Voyage: Fall 2014

Discipline: Public Health

SEMS 2500-101: Introduction to Public Health

Division: Lower

Faculty Name: John L. Dahl, Ph.D.

Pre-requisites:

None

COURSE DESCRIPTION

This course introduces students to Public Health as a population-based approach to preventing disease and promoting human health through community action. An emphasis will be made on how public health knowledge plays a vital role in daily lives, and comparisons will be made between the public health systems of the U.S., other developed countries, and of developing countries. Topics will include principles of evidence-based public health, collection and communication of health information, roles of social and behavioral sciences in public health, ethical and human rights concerns, different kinds of health systems, the roles of culture in health, prevention of non-communicable and communicable diseases, health issues specific for women and children, and working opportunities in public health. During the field lab student will investigate a country's public health system and how it functions to alleviate pressing health concerns of that country.

COURSE OBJECTIVES

On successful completion of this course, the student should be able to:

1. Identify the historical development of public health and ways that public health emerges in everyone's daily life.
2. Illustrate the interdisciplinary, cross-cutting, and ecological character of public health and the contributions of a range of disciplines and professions to improving health.
3. Explain the basic principles of epidemiology; including rates, risk factors, disease determinants, causation, and public health surveillance.
4. Explain how public health assesses the options for interventions to improve the health of a population.
5. Explain how public health can utilize social and behavioral interventions to improve the health of populations.
6. Explain how public health can utilize health policy and law to improve the health of populations.
7. Explain the impact of the environment and communicable diseases on the health of populations.
8. Explain the burden of chronic diseases on morbidity and mortality and approaches to prevention, early detection, and disease management.

9. Describe the basic organization of health care and public health systems and the contributions of health professionals.
10. Identify criteria for evaluating health systems, including issues of access, quality, and cost.
11. Identify the roles of public health in addressing the needs of vulnerable populations and health disparities.
12. Identify the roles of public health in disaster prevention and management.

REQUIRED TEXTBOOKS

AUTHOR: Richard Riegleman

TITLE: Public Health 101: Healthy People – Healthy Populations

PUBLISHER: Jones and Bartlett Learning

ISBN #: 9781449601492

DATE/EDITION: 2010/1st

AUTHOR: Phizer Public Health Group

TITLE: Milestones in Public Health: Accomplishments in Public Health Over the Last 100 Years

PUBLISHER: available as a free an online pdf file

ISBN #: <http://www.asph.org/document.cfm?page=1012> (Accessed 6/9/13)

DATE/EDITION: 2006/1st

AUTHOR: Tracy Kidder

TITLE: Mountains Beyond Mountains

PUBLISHER: Random House Trade Paperbacks

ISBN #: 0812980557

DATE/EDITION: 2009/ First edition (\$11 new, \$0.01 used at Amazon)

AUTHOR: Leon Uris

TITLE: Trinity

PUBLISHER: Avon

ISBN #: 0060827882

DATE/EDITION: 2006/ Mass Market Paperback (\$7 new, \$0.01 used at Amazon)

TOPICAL OUTLINE OF COURSE

Depart Southampton- August 23:

A1- August 25: Introduction to course field lab, topics, requirements, and evaluation

Questions to be Addressed:

- What will the course field lab be like?
- What are the course requirements and how will you be evaluated?
- What is public health?
- Why were the various movies chosen for viewing?

Reading Assignment:

Riegelman Chpt 1, pp. 3

Assignment Due Today:

Watch the two videos: “This is Public Health”

<http://www.youtube.com/watch?v=oQkGx6gRGIY&list=UUHlzppBTg2w8NbZOIWbb5Yg&index=4>

<http://www.youtube.com/watch?v=qPYwWoI9zaE&list=UUHlzppBTg2w8NbZOIWbb5Yg>

A2-August 27: Overview of Public Health

Questions to be Addressed:

- What are the United Nations Millennium Development Goals?
- What work does the World Health Organization and the CDC do?
- How has the approach to public health changed over time?
- What is “population health” and what are its four components?

Reading Assignment:

Riegelman – Chpt 1

<http://www.un.org/millenniumgoals/> webpage from United Nations Millennium Development Goals

<http://www.who.int/en/> webpage from World Health Organization

Assignment Due Today:

Watch the movie *Pandemic* (113 min) before arriving in St. Petersburg

St. Petersburg: August 29- September 2

A3- September 3: Evidence-based Public Health - Part 1

Questions to be Addressed:

- What are the components of an evidence-based public health approach (PERI)?
- How can we describe a health problem?
- What is the difference between incidence and prevalence?
- How are contributory causes established and what do they imply?

Reading Assignment:

Riegelman Chpt 2, pp. 17-27

Assignment Due Today:

A4- September 5: Evidence-based Public Health - Part 2

Questions to be Addressed:

- What recommendations work to reduce health impact?
- How are recommendations implemented?
- What follows implementation in the PERI approach?

Reading Assignment:

Riegelman Chpt 2, pp. 27-36

Assignment Due Today:

Answer Discussion Questions at the end of Chapter 2 and come to class prepared to discuss.

Watch the movie *Sick Around the World* before arriving in Hamburg

Hamburg: September 7-11

A5- September 12: Health Informatics and Health Communications

Questions to be Addressed:

- Where does public health data come from?
- How do we utilize information to make health decisions?
- What factors affect how we perceive public health information?

Reading Assignment:

Riegelman – Chpt 3

Assignment Due Today:

Quiz #1 (covers chapter 1 & 2)

To prepare for Milestone Cancer CASE STUDY for the next period watch the YouTube video “Hala Modellmog Testifies Before the Senate” [9 min 36 sec]
http://www.youtube.com/watch?v=QzONCno_Qho watch the vide

Find an article in the newspaper or other media that uses components of the Evidence-based Public Health approach (e.g., presents the burden of disease, draws conclusion about causation, presents evidence-based recommendations, and/or discusses implementation and evaluation). Give me the citation for your article and Abstract at the start of class. Include your name and the date at the top. Come to class prepare to discuss the article and briefly explain the PERI approach related to the article.

Watch the movie *The Price of Pleasure: Pornography, Sexuality, & Relationships* (56 min) before arriving in Antwerp

Antwerp: September 14-16

Le Havre: September 17-19

A6-September 20: Milestones of Public Health: Cancer

Questions to be Addressed:

- What is the history of cancer research?
- How have public health policies affected incidence and prevalence of cancer?
- What is the evidence for evolution?

Reading Assignment:

Milestones in Public Health: Chpt 5 CANCER

Assignment Due Today:

Watch the movie *Ghost in Your Genes* (56 min)

A7- September 22: Public Health in Ireland, past and present

Questions to be Addressed:

- How does understanding a country’s history contribute to understanding of current health challenges?
- What are current health challenges facing Ireland?

- How are these health challenges being met?

Reading Assignment:

Finish reading *Trinity* by Leon Uris

Examine the sites <http://www.dohc.ie/> and <http://www.publichealth.ie/>

Assignment Due Today:

Journal assignment addressing public health issues from the novel *Trinity*

Construct a list of top 10 current health challenges for Ireland

Watch the movie *The Magdalene Sisters* (120 min) before arriving in Dublin

Dublin: September 24-27

A8- September 28: Social and Behavioral Sciences - Part 1

Questions to be Addressed:

- How is public health related to the social and behavioral sciences?
- How do social factors explain differences in health and response to disease?
- How can individual or group behaviors be changed?

Reading Assignment:

Reigelman – Chpt. 4

Assignment Due Today:

Watch the following two videos:

Scenarios from Africa documentary (<http://www.youtube.com/watch?v=nTzuV1XN9ak>)

Global Dialogues (www.globaldialogues.org)

A9- September 30: Social and Behavioral Sciences - Part 2

Questions to be Addressed:

- What are the Health Belief Model and the Stages of Change Model and how can they be used in planned interventions to change behavior?
- What affect can counseling have on changing behavior?

Reading Assignment:

Scan over the US Department of Health and Human Services (2005) Theory at a glance: A guide for health promotion. 2nd Ed. NIH Publication No. 05-3896

Assignment Due Today:

Lisbon: October 1-2

In transit: October 3

Cadiz: October 4-5

A10- October 7: Health Policy, Law, and Ethics – Part 1

Questions to be Addressed:

- What is the scope of health law, health policy, and bioethics?
- Is there a right to health care?
- How does public health balance the rights of individuals and the needs of society?

Reading Assignment:

Riegelman – Chpt 5

Assignment Due Today:

Quiz #2 (covers chapters 3 & 4)

Watch the movie *Ali Zaoua* (99 min) before arriving in Casablanca

Casablanca: October 8-11

A11-October 13: Health Policy, Law, and Ethics – Part 2

Questions to be Addressed:

- How can bioethical principles be applied to protecting individuals who participate in research?
- How has the practice of quarantine changed over time?
- What are the principles of the Nuremberg Code?
- What was the Tuskegee study?
- What is the political and social controversy surrounding the HPV vaccine?
- What was the U.S. study of syphilis in Guatemala?

Reading Assignment:

Riegelman – Chpt 5

Assignment Due Today:

Watch the movie *Miss Ever's Boys* (118 min)

A12- October 15: Health Policy, Law, and Ethics – Part 3

Questions to be Addressed:

- Should teenage boys and girls get the HPV vaccine?

Reading Assignment:

Milestones in Public Health CASE STUDY: Human Papilloma Virus Vaccine

Listen to five NPR reports concerning the politics, risks, and efficacy of the HPV vaccine (mp3 files)

Assignment Due Today:

Debates about HPV vaccine (class will be divided in half)

Watch the movie *Frontline: the Vaccine War* (57 min)

Dakar: October 16-19

A13- October 21: Non-Communicable Diseases

Questions to be Addressed:

- What is the burden of non-communicable disease?
- How effective is screening for disease in asymptomatic individuals?
- What cost-effective interventions can help address the burden of non-communicable diseases?

Reading Assignment:

Riegelman – Chpt 6

Riegelman CASE STUDY: Testing and Screening, p. 122

Assignment Due Today:

Answer questions at end of CASE STUDY p. 122 and come to class prepared to discuss.

Watch the four movies *A-OK?* (24 min), *Missing Out* (27 min) and *Rx for Survival: Back to Basics* (55 min) before the next class period

A14- October 23: Communicable Diseases – Part 1

Questions to be Addressed:

- What is the burden of communicable diseases?
- What public health tools are available to address this burden?
- How can public health strategies be used to eliminate specific communicable diseases?

Reading Assignment:

Riegelman – Chpt 7, pp. 99 - 104

Assignment Due Today:

Quiz #3 (covers chapters 5 & 6)

Watch the movies *PBS Malaria: Fever Wars* (120 min), *Sowing Seeds of Hunger* (27 min), and *Healers of Ghana* (58 min) before next period before arriving in Takoradi

Gather different types of candies while in Ghana for use in next class period

Takoradi: October 25-26

Tema: October 27-28

A15- October 29: Communicable Diseases – Part 2

Questions to be Addressed:

- What biomechanical options are available for the control of HIV/AIDS?

Reading Assignment:

Riegelman – Chpt 7, pp. 105 - 107

Howard Hughes Medical Institute 2007 Holiday Lecture handouts (4 pdf files)

Assignment Due Today:

Begin 10-day exercise of anti-retroviral therapy adherence

Watch the film *Yesterday* (95 min)

A16- October 31: Communicable Diseases – Part 3

Questions to be Addressed:

- What options are available for the control of influenza and of rabies?

Reading Assignment:

Riegelman – Chpt 7, pp. 107 - 109

Listen to five NPR reports on avian influenza (mp3 files)

Assignment Due Today:

Watch the movie *Contagion* (106 min) before the next class period

Study Day: November 2

A17-November 3: Environmental Health and Safety – Part 1

Questions to be Addressed:

- What is meant by “environment”?
- What is the burden of disease due to the physical environment?
- What is risk assessment of the environment?

Reading Assignment:

Riegelman – Chpt 8

Riegelman Case Studies: Sharma’s Village, p. 124

Assignment Due Today:

Watch the movies *The World According to Monsanto* (109 min) and *Silent Spring* (55 min) before next class period

A18- November 5: Environmental Health and Safety – Part 2

Questions to be Addressed:

- What is an ecological risk assessment?
- What health risks do DDT, lead, and radon gas pose?
- What is a systems analysis approach to environmental health and safety?

Reading Assignment:

Riegelman – Chpt 8

Milestones in Public Health Chapter 3: Environmental Health: CASE STUDY
Carbon Nanotubes: The New Asbestos

Assignment Due Today:

Answer Questions for Discussion for Case Study and come to class prepared to discuss.

Watch the movies *Odô ya: Life with AIDS* (58 min) and *Baraka* (98 min) before arriving in Rio

Rio de Janeiro: November 7-9

In-transit: November 10-11

Salvador: November 12-14

A19- November 15: Health Care Systems

Questions to be Addressed:

- What kinds of government-supported and employment-based health care systems exist in the U.S.?
- How does the U.S. health care system compare to that of other industrialized nations?
- What are the extent and consequences of being uninsured and underinsured in the U.S.?

Reading Assignment:

Riegelman – Chpt 11

Assignment Due Today:

Watch the movie *Rx for Survival: Delivering the Goods* (55 min) before next class period

A20- November 17: Global Health – Vulnerable Populations: Women

Questions to be Addressed:

- What are biological and social determinants of female health?
- What burdens exist for female health?
- What policies and programs benefit female health?

Reading Assignment:

Skolnik Global Health 101 Chpt 9: Women's Health (pdf file)

Assignment Due Today:

Quiz #4 (covers chapters 7 & 8);

Watch the movie *A Walk to Beautiful* (56 min) before arriving in Bridgetown

Study Day: November 19

A21-November 20: Global Health – Vulnerable Populations: Children

Questions to be Addressed:

- What is the burden of childhood illness?
- What are risk factors for neonatal, infant, and child deaths?
- What programs and policies are implemented to improve children health?

Reading Assignment:

Skolnik Global Health 101 Chpt 10: Child Health (on reserve in library)

Assignment Due Today:

Watch the movies *India: Working to End Child Labor* (26 min) and *CNN: Where Have All the Parents Gone?* before next period

Bridgetown: November 22-24

A22-November 25: Global Health – Infectious Diseases

Questions to be Addressed:

- What are the global burdens of communicable diseases?
- What are global challenges to control of tuberculosis, malaria, and diarrhea?

Reading Assignment:

Skolnik Global Health 101 Chpt 11: Communicable Diseases (on reserve in library)

Assignment Due Today:

Watch the movie *Rx for Survival: Deadly Messengers* (55 min) before next period

A23- November 27: Global Health – Natural Disasters and Complex Humanitarian Emergencies

Questions to be Addressed:

- What are the characteristics of these disasters and emergencies?

- What are their health burdens?
- What policies and programs exist to alleviate these problems?

Reading Assignment:

Skolnik Global Health 101 Chpt 14: Natural Disasters and Complex Humanitarian Emergencies (on reserve in library)

Assignment Due Today:

Watch the movies *Japan's Killer Quake* (55 min) and *Sicko* (123 min) before arriving in Havana

Havana: November 29- December 2:

Study Day- December 3

A24-December 4 (A Day Finals):

FIELD WORK

Field lab attendance is mandatory for all students enrolled in this course. Please do not book individual travel plans or a Semester at Sea sponsored trip on the day of our field lab.

FIELD LAB (At least 20 percent of the contact hours for each course, to be led by the instructor.)

Idea #1: This field lab will take place in Dublin with visits to two sites. The first visit will be to the Institute of Public Health (IPH) that coordinates health improvement in both Ireland and Northern Ireland. This institute is involved in implementing effective and efficient health policy based upon the best available evidence, and it plays an important role in monitoring chronic conditions and inequities in national health. The IPH has many online publications (briefings) available on select health topics and each student will be responsible for reading one before attending the field trip. Staff at the IPH will explain the many activities of this institute and students will have the opportunity to learn about Irish public health issues from multiple perspectives. The second visit on this field lab will be to the Dublin Department of Public Health where students will learn about the risk factors of diseases, how health is being monitored and promoted in the community, and what health protection services exist in Dublin.

Idea #2: This Field Lab will begin with a visit to the non-profit organization AIDS-Hilfe Hamburg which works to help reduce transmission rates of HIV and other sexually-transmitted infections and to support those currently infected with these diseases. Employees and volunteers here are involved in helping the community by providing counseling, testing, and lobbying for better rights. During our visit staff members will explain the history, current situation, and future prospects of HIV in Germany as well as explain efforts to ensure high quality of life for Germans currently living with HIV/AIDS. Following this visit, we will travel to the Plan International Deutschland, which is one of the world's oldest and largest children development organizations. Originally started in 1937 in Spain to improve the lives of children suffering from the conditions of civil war there, the organization today promotes children rights and poverty reduction in nearly 50 developing countries. Staff at this facility will introduce us to numerous children health issues around the globe.

Field Lab Assignment: Field Trip Reaction Paper.

Students will prepare discussion topics and questions relevant to the Field Lab ahead of time. Upon returning from the Field Lab, they will write a 3-4 page reaction paper that will respond to specific questions (detailed ahead of time in class). It will be due in class approximately one week later. The assignment counts towards 20% of the final course grade.

FIELD ASSIGNMENTS

Students will make in-port observations and report on these throughout the course. Each student will submit a 1-2 page reaction paper upon the return from eight ports (of nine possible), describing their observations and/or discoveries related to a health issue in the country visited. Details will be discussed in class. The assignments count for 15% towards the final course grade.

METHODS OF EVALUATION / GRADING RUBRIC

Teaching Methods:

Lectures and discussions will be the primary formats for delivering content in class and will be interspersed with application-related experiences and small group work. Student work will include small group projects and attendance and participation is expected for each lecture period.

Readiness concept: The responsibility to learn is fundamentally that of the student. In order to succeed in a new subject, students must be actively engaged in the process of learning. Preparation for each class is essential and requires that each student read the assigned readings, have deeply processed issues, and be able to express a point of view.

Course requirements and Evaluation:

1. Four quizzes [20% - 5% each]
2. Debate: Milestones CASE STUDY – Human Papilloma Virus Vaccine [5%]
3. Written answers submitted for two other Milestones Case Studies [10% - 5% each]
4. Course journal: Students will submit a journal they have kept throughout the length of the voyage and will be viewed from time to time by the instructor. This journal will allow students to reflect upon course topics, reading, movies, activities, current events in public health, and observations made throughout the voyage. This journal will allow students a less formal platform than quizzes and other assignments and will allow the instructor to gain insights from students' perspectives. Overall quality of the journal will be based upon (1) the thoughts/reactions expressed and (2) overall composition (correct grammar and punctuation) [15%]
5. Field Lab Reaction Paper [20%]
6. Field Assignments for 8 ports [15%]
7. Final Exam [15%]

Grades will be determined based upon the following final percentages of possible points:

A+	100 - 97.6%
A	97.5 - 92.6%
A-	92.5 - 90.0%
B+	89.9 - 87.6%
B	87.5 - 82.6%
B-	82.5 - 80.0%
C+	79.5 - 77.6%
C	72.6 - 77.5%
C-	72.5 - 70.0%
D+	69.9 - 67.6%
D	67.5 - 62.6%
D-	62.5 - 60.0%
F	59.9% and below.

RESERVE LIBRARY LIST

AUTHOR: Eugene Nester et al.

TITLE: Microbiology; a Human Perspective

PUBLISHER: McGraw-Hill Scientific
ISBN #: 0073375314
DATE/EDITION: 2011/7th

AUTHOR: Richard Skolnik
TITLE: Global Health 101
PUBLISHER: Jones and Bartlett Learning
ISBN #: 97807637975105
DATE/EDITION: 2012/2nd

ELECTRONIC COURSE MATERIALS

AUTHOR: Richard Skolnik
CHAPTER TITLE: Chapter 9: Women's Health
BOOK TITLE: Global Health 101
DATE: 2011
PAGES: pp. 185 - 207

ADDITIONAL RESOURCES

Students will have access to the following DVD movies via onboard CCTV. Watching these movies will be a required part of course activities:

Pandemic
Sick Around the World
The Price of Pleasure: Pornography, Sexuality, & Relationships
The Magdalene Sisters
Ghost in Your Genes
A-OK?
Missing Out
Ali Zaoua
Healers of Ghana
Miss Ever's Boys
Frontline: the Vaccine War
Odô ya: Life with AIDS
Sowing Seeds of Hunger
Yesterday
The World According to Monsanto
Silent Spring
Contagion
Rx for Survival: Back to Basics
Rx for Survival: Delivering the Goods
Rx for Survival: Winged Messengers
Journey to Planet Earth: the Urban Explosion
CNN: Where Have All the Parents Gone?
A Walk to Beautiful

India: Working to End Child Labor
Japan's Killer Quake

HONOR CODE

Semester at Sea students enroll in an academic program administered by the University of Virginia, and thus bind themselves to the University's honor code. The code prohibits all acts of lying, cheating, and stealing. Please consult the Voyager's Handbook for further explanation of what constitutes an honor offense.

Each written assignment for this course must be pledged by the student as follows: "On my honor as a student, I pledge that I have neither given nor received aid on this assignment." The pledge must be signed, or, in the case of an electronic file, signed "[signed]."