Voyage: Spring 2015
Discipline: Anthropology
ANTH 3130: Disease, Epidemics and Society
Division: Upper
Faculty Name: John R. Shepherd
Credit Hours: 3; Contact Hours: 38

Pre-requisites: Previous or concurrent course in Social Science, Health Studies

COURSE DESCRIPTION

Topics covered in this course will include emerging diseases and leading killers in the twenty-first century, disease ecology, disease history and mortality transitions, the sociology of epidemics, the role of epidemiology in the mobilization of public health resources to confront epidemics, and the social processes by which the groups become stigmatized during disease outbreaks. This is a course that seeks to present a holistic view of global health by drawing on work crossing several disciplines, including anthropological demography, epidemiology, history of public health, disease history. This is not a course in medical anthropology narrowly conceived. The focus is primarily on acute outbreaks of communicable disease and the societal response, and will include analysis of recent outbreaks in some of the countries we visit.

COURSE OBJECTIVES
By the end of the course, students will be able to demonstrate an understanding of:

- The major milestones in human demographic history and their relation to disease history.
- How different cultural and scientific understandings of disease affect the social responses to disease.
- The role of pandemics of infectious disease in human history and the ongoing challenge posed by infectious disease.
- Epidemics of smallpox, bubonic plague, cholera, tuberculosis, malaria.
- The basic modes of disease transmission that characterize infectious diseases.
- How differences in mode of transmission affect the spread of disease in populations.
- How the tools of epidemiology are used to find means to interrupt transmission.
- Basic demographic measures such as crude birth and death rates, life expectancy at birth and at later ages, infant and maternal mortality rate, total fertility rate.
- Sources of epidemiologic data and measures of morbidity and disease prevalence.
- The kinds of descriptive and analytic epidemiological study designs
• How social conditions such as crowding, filth, poverty, and nosocomial factors can amplify the spread of infectious disease.
• How poor nutrition and comorbidity reduce human resistance to disease.
• How climate change and the environment affect the spread of infectious diseases.
• How misuse of antibiotics leads to pathogen resistance.
• The challenge to control of disease posed by pathogen resistance to antibiotics and vector resistance to pesticides.
• How newly emerging diseases like HIV, SARS, Ebola, and Avian Influenza enter the human population and the challenge they pose to health systems.
• The ways in which cultural, political-economic, and environmental factors influence health both locally and globally.
• The burden of disease in various regions of the world, how it varies both within and across countries.
• The key actors in global health and the manner in which they cooperate in outbreak response.

REQUIRED TEXTBOOKS


TOPOICAL OUTLINE OF COURSE

Depart Ensenada- January 7:

A1- January 9:

• Introduction: Disease in Human History

**A2- January 11:**
- The Neolithic transition and disease.

**A3- January 13:**
- Civilized disease pools: smallpox and measles, “childhood diseases”

*Hilo: January 14*

**A4- January 16:**
- Bubonic plague: the three pandemics.

**A5- January 19:**
- Crisis Mortality and Climate Change: Amplifying Disease Transmission through Disasters: War, Famine, Drought, Flood, Refugees.
  Readings:

**A6- January 22:**
- Introduction to Epidemiology .
**Recommended:** View: “Contagion: Nothing Spreads Like Fear”  

A7-January 24:  

40 minute Quiz. Short answer and multiple choice. 10% of grade.

● SARS


Yokohama: January 26-27
In-Transit: January 28
Kobe: January 29-31

A8- February 1:  

● Influenza: Human and Avian. 1


Shanghai: February 3-4
In-Transit: February 5-6
Hong Kong:7-8

A9- February 9:

● Influenza: Human and Avian 2.

Readings: Chapter 4. Into the Volcano. 102-130; Chapter 5. Livestock Revolution 133-


*Ho Chi Minh: February 11-16*

**A10- February 17:**

- Smallpox Vaccination; Germ theory and the ‘conquest’ of infectious disease. Epidemiological transition.


*Singapore: February 19-20*

**A11-February 22:**

- Cholera and Diarrheas 1

  Readings: 1. “Chapter 4, Cholera: Disease as Disorder.” In David Arnold 1993 *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-century India*. UC Press, pp. 159-199.


*Rangoon: February 24-March 1*

**A12-March 2:**

- Cholera and Diarrheas 2.


**A13- March 4:**
● Tuberculosis 1. Old Diseases Re-emerging: TB & Multiple Drug Resistant Strains


*Cochin: March 6-11*

**A14-March 13:**

● Tuberculosis 2. Compliance Issues in Health Care: culture or structural violence?


*View one of [to be determined]:*

a. *Frontline*: Tb, silent killer: Swaziland. SAS DVD Tb. 90 minutes.

b. *PBS: Rx for Survival: Tuberculosis.*

http://www.pbs.org/wgbh/rxforsurvival/series/diseases/tuberculosis.html

c. PBS DVD Tuberculosis The People’s Plague — part II. Of DOTS and Mantoux tests. YOUTUBE.

d. TB: the forgotten plague Clemons VIDEO .DVD03490 1993. 50 minutes.

**FIRST ESSAY DUE ON MARCH 14**

**A15-March 15:**

● HIV/AIDS 1 The emergence of HIV in the U.S. The CDC and the politics of disease.


*Port Louis: March 18*

**A16- March 19:**

In The Coming Plague, Newly Emerging Diseases in a World Out of Balance.

A17-March 21:


A18- March 23:

● HIV/AIDS 4  HIV in South Africa.


Cape Town: March 25-30

Field Lab 1. See page 9 below.
A19-April 1:

- **Malaria 1** A vectored disease.


A20-April 3:

- **Malaria 2:** Perceptions.


A21- April 5:

- **Malaria 3** Interventions.


_Tema (Accra): April 7-9
Takoradi: April 10-11_

A22-April 12:

- **Ebola 1** Ebola Outbreaks and Nosocomial amplification.


A23-April 15:

- **Ebola 2** Indigenous understandings.


**SECOND ESSAY DUE ON APRIL 16**

Dakar April 17-21

Field Lab 2: See page 9 below.

A24-April 22:

- **Ebola 3** Health interventions and stigma.


A25: A Day Finals  April 25.

April 29: Arrive in Southampton

---

Field Labs Planned for Disease, Epidemics and Society.

1. **Field Lab 1: Cape Town**, Tygerberg Children’s Hospital & Heart of Cape Town Museum

Participants will visit the Tygerberg Children’s Hospital, home of the Hope Cape Town Association. Hope Cape Town is a nonprofit organization which offers community outreach, education and counseling focusing on HIV/AIDS and TB in the Western Cape Province of South Africa. Tygerberg Children’s Hospital provides specialty pediatric care for infants with HIV/AIDS, TB or various cancers. The lab will feature a presentation by the Director of the Association. Through this experience participants will gain insight into HIV/AIDS and poverty in
South Africa and the implications on families and societies. Please plan ahead to bring one or two items to donate to Tygerberg Children’s Hospital.

2. **Field Lab 2: Dakar.** The day of the field lab would begin at University Cheikh Anta Diop (the University of Dakar) where we will meet with a researcher who is investigating drug resistance in malaria parasites that has resulted from changing malaria treatment policies in Africa. Dr. Ndiaye will explain his research, and we will have the opportunity to lunch with Senegalese undergraduate students. Next, we will meet with Marissa Pledger, who is a former Semester at Sea student and is serving in her first year as a U.S. Peace Corps volunteer (PCV) in Senegal. Marissa will share with us her experiences as a health care worker in a small village in northeast Senegal and we may meet another PCV who is involved in mosquito control in Dakar. Lastly, we will meet with Senegalese public health officials who are working with resources from The Global Funds to battle the three diseases of tuberculosis, malaria, and HIV in their country. Topics covered will include programs where funds are targeted, coordination of efforts to control these diseases, and monitoring of progress in this control.

Academic Objectives:

1. Allow students to experience what an international effort is like to combat infectious diseases.
2. Allow students to learn how national policy and strategy is formulated in an African country to tackle infectious disease.
3. Allow students to gain a better perspective of how developing countries utilize resources to combat infectious diseases.

===============

**Field lab dress code** is Business casual. What to Wear: For women, skirt or slacks and a blouse or collared shirt. For men, dress pants, a button down or polo. Personal appearance groomed and neat. Comfortable closed toe shoes. Do NOT Wear: Tee shirts, flip flops, sneakers, jeans, shorts, short skirts, sweat pants, leggings, tank tops, and/or wrinkled, revealing, stained or dirty clothing.

===============

**METHODS OF EVALUATION / GRADING RUBRIC**

**Participation in class discussions: 10%**

**Field lab reports:** 10% each (Total 20%)

**Quiz : 10%**

**Final Exam: 30%**

The final exam is scheduled for April 25. It will be a cumulative exam, including all the material
covered in the semester. This will be a 75 minute two-hour short answer and multiple choice exam.

Two Essays: 15% each. (Total 30%)

Guidelines for essays 1 and 2: Identify a set of issues (see suggestions below) that seem most important to you for your paper topic. With respect to your chosen issue, compare and contrast no less than three cases (three different diseases) which we have covered in the course to date. Do not string together lengthy discussions of single cases serially with only weak comparative statements attached at the end. Do not rely on buzz words as shorthand without first spelling out the underlying processes they refer to in a way that demonstrates your understanding. Observe the format and citation requirements set out below.

Possible issues: how early identification of disease outbreaks occurs; epidemiological investigation as a learning process; connections between field epidemiology and lab scientists; how differences in disease characteristics (e.g., mode of transmission, infectivity, symptoms, disease progression) shape public health responses; the role of international cooperation in dealing with outbreaks; stumbling blocks impeding international cooperation in responding to outbreaks; what causes some diseases to be linked to poverty (which aspects of ‘poverty’?) and others not; identify the specific dimensions of poverty most relevant to particular diseases; how risk groups get defined; advantages and disadvantages of identifying risk groups; the role of government, politics, economics in confronting disease outbreaks; the role of fear, panic, and stigma in human responses to disease outbreaks; the role of ecological changes in amplifying or inhibiting outbreaks; the circumstances leading to the emergence of new diseases; the emergence of drug and pesticide resistance, why in some cases citizens need to demand action from public officials, and in others citizens resist interventions from public officials.

Each essay should be no less than 5 pages of 300 words each. Make explicit reference to the readings in your discussion.

ADDITIONAL RESOURCES

Movies and pdfs of articles will be available as indicated in the body of the syllabus.

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].”
LIST of ADDITIONAL RESOURCES Needing to be added to the S@S library:

Purchase and add these source books to the SAS library (these are in addition to the texts required for the course that students and the library should buy):


Purchase and add the following DVD’s to the S@S library:

*Ebola: The Plague Fighters: Nova.* 2007. 54 minutes. VIDEO .DVD20083. “In May 1995, one of the world's most deadly plagues, an outbreak of the Ebola virus, terrorized a remote region of Zaire. This documentary takes you inside the quarantined "hot zone" of Kikwit and exposes the efforts to stop the biological time bomb. As doctors combat the highly lethal disease, epidemiologists complete a "chain of death" to trace its origins, and scientists fear an Ebola mutation even more virulent and difficult to contain.”

*And the Band Played On.* 1993. Clemons VIDEO .DVD13092. 140 mins. [Kaltura Media Gallery on Collab. ]

*Contagion: Nothing Spreads Like Fear* [videorecording] 2011. / directed by Steven Soderbergh. Clemons VIDEO .DVD15527
Make pdfs of the following articles: [I have copies of all the others for anth 3130.]

1. “Chapter 4, Cholera: Disease as Disorder.” In David Arnold 1993 Colonizing the Body; State Medicine and Epidemic Disease in Nineteenth-century India. UC Press, pp. 159-199.