Past and Present Pestilence: An Interdisciplinary Examination of the Impact of Zoonotic Diseases

ANTHSCI 178A/278A
Spring 2008

Course Description:
This course will analyze some of the major zoonotic diseases in humans (HIV, tuberculosis, malarias, plagues, measles, poxes, etc.). We will examine pathology, etiology and transmission, historical and present demographic, economic and social impacts, and how these affect and inform eradication and control strategies. Weekly lectures will introduce the disease, and we will use readings and student research to expand on this for discussion. Class participation is essential for success in this class. Evaluation will be based on class participation, in-class presentations, and a research paper.

Course Information
Day(s): Monday & Wednesday, 11:00a-12:15p
Location: Bldg.160, Rm. 323
Course Units: 3-4
Course Level: Undergraduate and Graduate

Instructor
Dr. Sadie J. Ryan, NSF Postdoctoral Fellow & Lecturer, Dept. of Anthropology
sjryan@stanford.edu
Office: 357 Y2E2
Mailbox: Department of Anthropology, Building 50, Main Quad.
Office Hours: Mon/Wed 2-4pm and by appointment
**Grading**
Since this is an upper level class, I expect high levels of interaction and participation and the grading will reflect this. The largest emphasis is on the research paper component; preparedness and promptness will be key.

Class participation: 30%
One exam (in class): 10%
Research Paper:
   - Outline: 10%
   - Draft: 10%
   - Final: 30%
Review/Critique: 10%

**Schedule and Topics + Readings and Work**
Readings must be done prior to the lecture date on which they are listed.

Required Texts (warning: Bookstore thinks this course is 170A/270A):

Laurie Garrett *The Coming Plague*
William H. McNeill *Plagues & Peoples (with New Preface)*
Robert S. Desowitz *Who Gave Pinta to the Santa Maria*
William Rosen *Justinian's Flea*
# Lecture Schedule (subject to changes and updates)

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>DATE</th>
<th>TOPIC</th>
<th>READING &amp; Work</th>
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<tbody>
<tr>
<td>1</td>
<td>Wed 04/02/08</td>
<td><strong>Introduction to class:</strong> Description of ideas, introduction to zoonotics and zoonotic spread</td>
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<tr>
<td>2</td>
<td>Mon 04/07/08</td>
<td>Overview and definitions of zoonotics</td>
<td>Desowitz, Intro, Chs 1+2 Dazak et al., 2000, Scott 1988; Cleaveland et al, 2001 Hubalek, 2003 Optional: Quammen 2007, Jones et al., 2008 Fill out index cards</td>
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<tr>
<td>4</td>
<td>Mon 04/14/08</td>
<td>Plague II: The animal reservoir GUEST: Dan Salkeld</td>
<td>Smallpox CDC Factsheet Giblin, Chapers 8,9,10 Jones-Engel et al., 2006 Karesh and Cook, 2005 Karesh et al, 2005 Wolfe et al., 2007 BBC, 2003 Meet people and think about groups and topics</td>
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<tr>
<td>5</td>
<td>Wed 04/16/08</td>
<td>Poxes I.</td>
<td>Tell me your group and topic</td>
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<td>6</td>
<td>Mon 04/21/08</td>
<td>Poxes II: Discussion: Pox and ‘pets’- the wildlife trade and pet culture</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
<td>Notes</td>
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| 7    | Wed 04/23/08 | **Influenza I.** | Coming plague, ch. 6  
New York Times articles (DO NOT PRINT OUT)  
Webby and Webster, 2003  
Meltzer et al, 1999  
Glezen, 1996 |
| 8    | Mon 04/28/08 | **Influenza II: Modern problems**  
Discussion: avian flu issues, unexposed generations, flu shots and coverage, demographic pyramids and susceptibility.  
Global warming and vector movement (migratory fowl) vs. people overstocking (livestock issues). | |
| 9    | Wed 04/30/08 | **Tuberculosis I** | 1-page outline of topic and ideas due  
Lienhardt, 2001  
Kaye and Frieden, 1996  
Koenig, 2008  
Barnes chapter  
Zoonotic BTB: Cosivi et al., 1998; Palmer, 2007; Grange et al., 1994 |
| 10   | Mon 05/05/08 | **Tuberculosis II: TB-HIV**  
**GUEST: Maria Sanchez** | |
| 11   | Wed 05/07/08 | **HIV I.** | Coming Plague ch.14, 20  
McNeill, preface  
Hahn et al., 2000  
Wolfe et al., 2005;  
Wolfe et al., 2005  
Economist article  
Markel, Ch. 5 |
| 12   | Mon 05/12/08 | **HIV II.**  
Discussion: Relatively recent disease in humans, misconceptions made it easy to spread (gay fear, straight immunity), current problems of co-infection.  
Socioeconomic divide in manageability of latent phase.  
Workforce impacts/orphan issues | **Firm project outline and roles** |
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<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Reading Material</th>
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<tbody>
<tr>
<td>13</td>
<td>Wed</td>
<td>Malaria I.</td>
<td>Desowitz, ch 5, 6, 7, 10, 11&lt;br&gt;Breman et al., 2004&lt;br&gt;Yasuoka and Levins, 2007&lt;br&gt;DiFiore et al., <em>in press</em>&lt;br&gt;Keiser et al., 2005&lt;br&gt;Aviles et al., 1999</td>
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<tr>
<td>14</td>
<td>Mon</td>
<td>Malaria II</td>
<td><em>GUEST: James Holland Jones</em></td>
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<td>15</td>
<td>Wed</td>
<td>Measles</td>
<td><em>In class exam: 30 minutes</em>&lt;br&gt;MMWR, 2006 extract&lt;br&gt;Elliman and Bedford, 2008&lt;br&gt;Coming Plague, pp. 510-512&lt;br&gt;MSF, 2004 paper&lt;br&gt;Fine and Clarkson, 1982</td>
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<td></td>
<td>Mon</td>
<td>Memorial Day – NO CLASS</td>
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<td>16</td>
<td>Wed</td>
<td>VHF: Hanta, Ebola, Marburg</td>
<td>The Coming Plague&lt;br&gt;ch.3,4,5,7,15&lt;br&gt;<em>Draft for ‘peer review’</em></td>
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<td>17</td>
<td>Mon</td>
<td>Other zoonotics we contend with Range shifts, global and regional warming, shifts in species composition</td>
<td>Peer reviews returned&lt;br&gt;Nytimes, 2007 article on Chikingunya&lt;br&gt;Cieslak and Eitzen, 1999</td>
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<tr>
<td>18</td>
<td>Wed</td>
<td>Re-emerging zoonotics</td>
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