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Diplomacy Syllabi

School of Diplomacy and International  
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Fall 2017

## **Global Health, Bioterrorism, and International Security**

Li-Wen Zhang Ph.D.

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# GLOBAL HEALTH, BIOTERRORISM, AND INTERNATIONAL SECURITY

DIPL 6277NA  
Thur. 5-7:10pm

Fall 2017

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Office hours: by appointment

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## **Course Overview**

The threat of bioterrorism, long ignored and denied, has heightened over the past few years. The terrorist attacks of September 11 and the subsequent assaults with anthrax through the postal system underscored both strengths and weakness in the U.S. public health system and sounded a warning to global health.

Globally, two candidate agents are of special concern: smallpox and anthrax. The magnitude of the problems and the gravity of the scenarios associated with release of these organisms have been vividly portrayed by two epidemics of smallpox in Europe during the 1970s and by an accidental release of aerosolized anthrax from a Russian bioweapons facility in 1979.

This course will address the protection of the global public health from biological agents that cause disease and/or death. Students will learn current issues in disaster mitigation, how biological agents can be transmitted in the environment, measurement techniques, decontamination methods, the proper use of personal protective equipment and response strategies for bioterrorism emergencies and related catastrophic event. Students will analyze and synthesize the information to effectively analyze risk and communicate that risk to the populations they serve and critique policies to protect specific populations.

**Course Objectives:** During this course the student will:

1. Characterize the types of biological agents which have or could be used in bioterrorism and the role of these agents in the broader spectrum of global health protection and disease prevention.
2. Interpret the physical and biological limits of transmitting biological agents by air, water, food, vectors, and fumes or by direct contact, and how public health intervention strategies can disrupt these transmission routes.
3. Analyze potential disasters: where they could occur, vulnerable and special populations, greatest life threats and risk mitigation strategies for specific disaster scenarios.
4. Work with group members using case studies, role playing, service learning and other strategies to understand the limitations of emergency policies, plans and actions during and after a bioterrorism incident.

**Learner Objectives:** During this course the students will

1. illustrate by presentation, their understanding of terminology, resources, concepts and the application of strategies to identify, evaluate and control risks from biological agents;
2. evaluate the literature about the health effects, evaluation and control of biological agents and communicate the risk of a specific assigned agent to a defined population using appropriate risk communication strategies;
3. analyze and synthesize available resources about agents, transmission, health surveillance, building systems, special populations, regulations and environmental information and develop and critique appropriate policies to protect the global health in a bioterrorism incident

### **Texbooks**

*Barry S. Levy, Victor W. Sidel Terrorism and Public Health (Oxford University Press, 2007).*

*World Health Organization-Bioterrorism*

<http://www.who.int/topics/bioterrorism/en/>

*Performance Expectations and Measuring Performance*

### **Requirements**

Student will be expected to complete all the required readings in advance of each session. The optional, reference readings provide additional background for those who wish to immerse themselves more deeply in particular issues covered in the course but reading them is not part of the instructor's performance expectations. Selected reference readings may, however, prove useful in preparation of the written exercises.

Notes summarized from the readings will be provided prior to each class; they are intended to facilitate class preparation and make the task of covering the reading easier. Most of the readings will be available electronically.

Students will be expected to participate proactively in group discussions and class exercises. Learning to work effectively in groups is an important aspect of the course. The discussions, exercises, and the final examination will be designed to encourage analysis, synthesis and application of ideas and information provided in the readings and previous classes.

Three written products will be submitted:

- a) Written policy analyses: All students will prepare a full short policy analysis memos of five pages in length (double spaced, 12 point type (Times Roman or equivalent ONLY), for case studies covered in class. The analyses will be written from the perspective of a particular stakeholder concerned about the issue under discussion.
- b) Group Presentation: groups will be formed to prepare oral presentations. The class will be divided into groups of four or five, depending on the size of the class. Time will be given

during the class to allow groups to begin preparations; however, some meeting time outside of class will probably be necessary to effectively prepare for this exercise.

c) Individual take-home examination at the end of the course. The date for the take-home examination will be determined during the course. In principle it should be taken immediately after the final class session on Dec. 14 (this course)-Dec 21.

### **Grading**

- a) Quality of class participation-understanding of and drawing upon the readings and participating group discussions-20%
- b) Group project presentation on a developing country health problem-30%
- c) Written policy analyses-20%
- d) Take-home examination-30%

### **Grading Scale**

A	94-100%	A-	90-93%	B+	87-89%
B	83-86%	B-	80-82%	C+	77-79%
C	73-76%	C-	70-72%	D+	67-69%
D	60-66%	F	59% and below		

### **Remarks**

Plagiarism and other forms of academic dishonesty will be reported to the administration, and may result in a lowered or failing grade for the course and up to possible dismissal from the School of Diplomacy. See University and School standards for academic conduct here: <http://www13.shu.edu/offices/student-life/community-standards/upload/Seton-Hall-University-Student-Code-of-Conduct.pdf> <<http://www.shu.edu/academics/diplomacy/academic-conduct.cfm> >

### **Policy on Incompletes:**

Incompletes will be given only in exceptional cases for emergencies. Students wishing to request a grade of Incomplete must provide documentation to support the request accompanied by a Course Adjustment Form (available from the Diplomacy Main Office) to the professor *before* the date of the final examination. If the incomplete request is approved, the professor reserves the right to specify the new submission date for all missing coursework. Students who fail to submit the missing course work within this time period will receive a failing grade for all missing coursework and a final grade based on all coursework assigned. Any Incomplete not resolved within one calendar year of receiving the Incomplete or by the time of graduation (whichever comes first) automatically becomes an "FI" (which is equivalent to an F). It is the responsibility of the student to make sure they have completed all course requirements within the timeframe allotted. Please be aware that Incompletes on your transcript will impact financial aid and academic standing.

### **A Note for Students with Disabilities**

It is the policy and practice of Seton Hall University to promote inclusive learning environments. If you have a documented disability you may be eligible for reasonable accommodations in compliance with University policy, the Americans with Disabilities Act,

Section 504 of the Rehabilitation Act, and/or the New Jersey Law against Discrimination. Please note, students are not permitted to negotiate accommodations directly with professors. To request accommodations or assistance, please self-identify with the Office for Disability Support Services (DSS), Duffy Hall, Room 67 at the beginning of the semester. For more information or to register for services, contact DSS at (973) 313-6003 or by e-mail at [DSS@shu.edu](mailto:DSS@shu.edu).

### COURSE TOPICS AND READINGS

<b>Week 1 Aug. 31</b>	Introduction Overview of course objectives, themes, and sessions
<b>Week 2 Sept. 7 Part I</b>	1.Chllenges that Terrorism Poses to Public Health <i>Terrorism and Public Health, pp.1-49</i>
<b>Week 3 Sept. 14</b>	2. The Public Health Response to the World Trade Center Disaster Discussion: role of health care in a presidential campaign <a href="http://www.who.int/global_health_histories/seminars/paper02.pdf">http://www.who.int/global_health_histories/seminars/paper02.pdf</a> smallpox, bioterrorism and the world health organization
<b>Week 4 Sept. 21</b>	Terrorist Weapons Small Arms, Explosives, and Incendiaries Discussion: Health Policy <a href="http://www.scielosp.org/scielo.php?script=sci_arttext&amp;pid=S0042-96862001001100018">http://www.scielosp.org/scielo.php?script=sci_arttext&amp;pid=S0042-96862001001100018</a> WHO helps countries prepare for bioterrorism attacks <i>Terrorism and Public Health, pp.49-69</i>
<b>Week 5 Sept. 28</b>	Biological Weapons Discussion: U.S. disease surveillance system: its role in public health and bioterrorism; who does it; what is tracked; who funds it; how it is monitored <a href="http://www.cdc.gov/ncidod/EID/vol8no10/02-0345.htm">http://www.cdc.gov/ncidod/EID/vol8no10/02-0345.htm</a> Bioterrorism-Related Anthrax: International Response by the Centers for Disease Control and Prevention <i>Terrorism and Public Health, pp. 69-101</i>
<b>Week 6 Oct. 5</b>	Chemical Weapons Read Ready or Not? Protecting the Public's Health in the Age of Bioterrorism, pp. 22-25 <a href="http://healthyamericans.org/state/bioterror/Bioterror.pdf">http://healthyamericans.org/state/bioterror/Bioterror.pdf</a> . More readings of current issues will be distributed before the next class
<b>Part II Terrorist Weapons</b>	
	Nuclear, Radiological, and Related Weapons

<p><b>Week 7 Oct. 12</b></p>	<p>Discussion: Mock presentation to an editorial board by a public health NGO  <a href="http://www.thedoctorwillseeyounow.com/articles/other/biot_9/">http://www.thedoctorwillseeyounow.com/articles/other/biot_9/</a>          Bioterrorism -- Are We Prepared?  <i>Terrorism and Public Health, pp. 80-141</i></p>
<p><b>Week 8 Oct. 19</b></p>	<p>Strengthening the Public Health System          Communicating about Anthrax: Some Lessons Learned at the CDC  <a href="http://www.phac-aspc.gc.ca/ep-mu/bioem-eng.php">http://www.phac-aspc.gc.ca/ep-mu/bioem-eng.php</a>          Bioterrorism and Emergency Preparedness (Cannada)   <i>Terrorism and Public Health, pp. 155-168</i></p>
<p><b>Week 9 Oct. 26</b></p>	<p>Improving Epidemiology, Surveillance, and Laboratory Capabilities  <a href="http://www.sciencecases.org/bioterrorism/bioterrorism_notes.asp">http://www.sciencecases.org/bioterrorism/bioterrorism_notes.asp</a>          case of Athrax  <i>Terrorism and Public Health, pp.175-199</i></p>
<p><b>Week 10 Nov. 2</b></p>	<p>Improving Vaccines, Antimicrobials, and Antitoxins          Read selected newspaper editorials on disease tracking proposals (to be distributed)  <a href="http://bioterrorism.slu.edu/bt/education/suspected_p.htm">http://bioterrorism.slu.edu/bt/education/suspected_p.htm</a>          Suspected Brucellosis Case Prompts Investigation of Possible Bioterrorism-Related Activity  <i>Terrorism and Public Health, pp. 212-256</i></p>
<p><b>Week 11 Nov. 9</b></p>	<p>Protecting Food, Water, and Ambient Air  <a href="http://www.ahrq.gov/clinic/epcsums/bioregsum.pdf">http://www.ahrq.gov/clinic/epcsums/bioregsum.pdf</a>          Regionalization of Bioterrorism Preparedness and Response   <b><u>***Policy Brief due***</u></b></p>
<p><b>Part III Challenges and Opportunities</b></p>	
<p><b>Week 12 Nov. 16</b></p>	<p>Promoting International Law  <i>World Health Organization-Bioterrorism</i>  <a href="http://www.who.int/topics/bioterrorism/en/">http://www.who.int/topics/bioterrorism/en/</a>  <i>Performance Expectations and Measuring Performance</i></p>

<b>Week 13 Nov. 23-24</b>	Thanksgiving Recess - University Closed
<b>Week 14 Nov.30</b>	The Future of Health Security <i>Terrorism and Public Health, pp. 265-351</i> Course review and preparation for final exam.
<b>Week 15 Dec. 7</b>	<b><u>TAKE HOME FINAL EXAM DISTRIBUTED ON DECEMBER 7</u></b>
<b>Week 16 Dec. 14</b>	<b><u>***DUE AT NOON ON TUESDAY, DECEMBER 14.***</u></b>