BIOD-620-001:
Health and Security

Fall 2016
3.0 Credits

School of Policy, Government, and International Affairs
George Mason University
Hanover Hall, L003

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sparanja@gmu.edu
Office Hours: Monday, 3-4 PM or phone (appointment required)

Course Description:
The purpose of this course is to introduce students to the concepts, history, policy, and practice of national and global health security. Because this is a relatively new area of study, we will explore the origins of health security concepts and examine social science and scientific frameworks for health security. This course will also explore the role of diverse U.S. government agencies and international organizations in setting and implementing priorities for international health security and provides an opportunity for students to gain experience in understanding and practicing interagency collaboration strategies. Through analysis of recent global health security case studies and discussions with global health leaders, the class will learn to extend academic frameworks to actionable policy recommendations. The goal is to gain a strong understanding of the scientific and social scientific paradigms of health security and to gain experience in developing program and policy recommendations for sustainable health security systems. The course is designed to provide students with a broad understanding of health security and it’s importance for global public health as well as direct experience with and understanding of the benefits and challenges of interagency collaboration.
Course Objectives:
1. Understand the history of health security and become familiar with key documents, frameworks and agreements underpinning national and global health security.
2. Familiarity with the academic and policy frameworks of health security as an emerging field that lies at the nexus of security and global/public health studies.
4. Familiarity with the International Health Regulations (2005), the Global Health Security Agenda, and key national and international documents for health security.
5. Understand the policy and implementation objectives for major health security stakeholders, including U.S. agencies, United Nations International Organizations, and the private sector.
6. Ability to apply scientific knowledge and social scientific theories of security studies as frameworks for understanding historical and contemporary cases.
7. Ability to write policy documents outlining national and global priorities for health and security.

Format and Procedures

Methods of Instruction
This course will employ multiple formats including lectures, case studies, guest lectures, and class discussions and tabletop exercises. All required reading should be completed prior to class. Discussion and interaction will be essential for learning.

Attendance at all classes is required. Participation will be evaluated in terms of contributions to class discussion.

Assignments

Policy Briefs:
There will be three policy briefs and/or memoranda assigned for homework throughout the semester. These policy briefs will provide an opportunity for you to synthesize reading and class material and distill information and policy recommendations into a succinct (2 pages or less) memo.

Mid-term:
The mid-term writing assignment will be based on a tabletop exercise that will be conducted during class. Each student will be assigned to represent a different government stakeholder. The class will be required to draft a joint policy recommendation. In addition, each student will draft an agency memorandum that discusses how the agency will implement the policy recommendations. Students will be required to give an oral presentation in addition to the written presentation.

Final Term Paper:
Each student will develop an original idea (thesis, and outline) relating to current or past health security events and develop the idea for a final term paper of 10-15 pages. We will
discuss the term paper and topics during September-October. Students will be required to present their work to the class.

Writing assignments should be uploaded to Blackboard as a pdf file. The deadline is by the start of class (4:30 PM) the day the assignment is due. The file should be labeled as Your Last Name_Your First Name_Name of Assignment. Papers should be double-spaced with 12-point font, 1-inch margins, numbered pages, and use the Chicago Manual of Style for footnotes.

**Grading**

Your final grade will be calculated as follows:

<table>
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>20%</td>
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<tr>
<td>Midterm: Participation, Report</td>
<td>25%</td>
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<tr>
<td>Homework Assignments (policy briefs)</td>
<td>30%</td>
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<tr>
<td>Final Term Paper</td>
<td>25%</td>
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The deadlines for all written assignments are strict and extensions will not be permitted in the absence of a genuine emergency or documented illness. A late assignment will be penalized a full letter grade (for example, from A to B) for every 24 hour period that it is late.

**Course Materials**

Each week, students will be expected to discuss and draw from required readings. Required readings will be drawn from books, articles, and policy documents. All books/chapters will be available on reserve at the library.

All articles and policy documents will be available on Blackboard. Powerpoint presentations will also be posted to Blackboard.

**Required Book:**

**Recommended Books:**


**University Policies & Information**

**Honor Code**

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. Violations of the Honor Code will not be tolerated and will be referred to the Honor Committee for investigation.

Plagiarism encompasses the following:
1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.

For more information on this subject, please consult http://mason.gmu.edu/~montecin/plagiarism.htm

**Disabilities**: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services at 703-993-2474 or ods.gmu.edu. All academic accommodations must be arranged through that office.

**Email**: Mason uses only Mason email accounts to communicate with enrolled students. Students must activate their Mason email account, use it to communicate with their department and other administrative units, and check it regularly for important university information including messages related to this class.

**Writing Center**: A114 Robinson Hall; (703) 993-1200; http://writingcenter.gmu.edu

“Ask a Librarian” http://library.gmu.edu/mudge/IM/IMRef.html

**Counseling and Psychological Services (CAPS)**: (703) 993-2380; http://caps.gmu.edu

**University Catalog**, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu/. All members of the university community are responsible for knowing and following established policies.
# SYLLABUS

## Session 1: Introduction to Health and Security  
**August 29**

**Course introduction and logistics**

**Overview of the concepts, frameworks and history of health security**

**Health Security Stakeholders**

**Required Reading:**
- Elbe, Security and Global Health, Chapter 1, The Medicalization of Security in the Twenty-First Century (pp. 1-29)
- Youde, Global Health Governance, Chapter 1 (pp. 13-25)
- The Preamble of the Constitution of the World Health Organization, Frank P Grad (Blackboard)

**Recommended Reading:**
- World Health Organization, Threats to Public Health Security (Chapter 2), 2007 (Blackboard)
- Global Health Security Agenda Info Sheet (Blackboard)

## Session 2: Pandemic Threats  
**September 12**

**Introduction to Infectious Diseases**

**Pandemic Threats and Health Security:**

**Prevention, Detection, and Response to Potential Pandemics**

**Required Reading:**
- Elbe, Security and Global Health, Chapter 2, Microbes Take to the Sky (pp. 30-65)
- Youde, Global Health Governance, Chapter 8, Framing Global Health Security (pp. 132-143)
- Core Capacity Checklist and Indicators WHO
- Vietnam Demonstration Project
- Mangal and Maryogo-Robinson, “Leveraging the Laboratory Response Network for the Global Health Security Agenda”
- IHR Implementation
- Buehler et al, “Syndromic Surveillance and Bioterrorism Related Epidemics”
- Wilson et al, “Protecting global health security through the International Health Regulations: requirements and challenges”
- Zika versus Ebola

**Recommended Reading:**
- Wolfe, “The Viral Storm”, Chapter 1 (Background on microbiology)

## Session 3: Inadvertent Health Threats from the Research Lab: Policy and Regulation of Gain of Function, Synthetic Biology, Accidental Release  
**September 19**

**Guest Speaker: Dr. David R. Franz, DVM, Ph.D.**

**Required Readings:**


**Recommended Readings:**

- Adaptation of Avian Flu Virus Are a Cause for Concern”, Berns et al, SCIENCE, 10 Feb 2012, vol 235 (pp. 60-61) (Blackboard)
- Biolabs.usatoday.com

**Policy Brief 1 Assigned**

**Session 4: Biological Weapons and Health Security**

**Required Readings:**
Elbe, Security and Global Health, Chapter 3
U.S. National Strategy For Countering Biological Threats, 2009
Carus, “The History of Biological Weapons Use: What We Know and What We Don’t”
Moudy, Ingerson-Mahar et al, “Bridging the Health Security Divide”
U.S. Department of Defense and Global Health Sept 2012, Kaiser FF

*For class: Please be prepared to provide a brief summary of the National Strategy for Countering Biological Threats, Moudy, and the Kaiser reports.*

**Session 5: Governance and Interagency and International Collaboration for Global Health Security**

**International Health Regulations to Global Health Security**

**Required Readings:**
- Youde, Chapter 2, pp. 29-45
- WHO International Health Regulations (2005)-(Blackboard)
- *WHO 2007, Areas of Work for Implementation* (Blackboard)
- USG-WHO MOU-Distributed in class
- Global Health Security Agenda Documents-(Blackboard Posted Aug 31)
- “International Health Regulations: Taking Stock”, Nutall I *(Blackboard)*

WHO Health Security Strategy
WHO International Health Regulations (2005)
U.S. Global Health Security Documents

**Recommended Readings:**
- “The Global Health Security Agenda in the Age of Bioterrorism”, Gostin LO *(Blackboard)*

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<thead>
<tr>
<th>Session 7: Governance, National and International Priorities for Health</th>
<th>October 11</th>
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<td>Session 6: Midterm Exercise</td>
<td>October 17</td>
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Table Top Exercise-Midterm Presentations

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<th>Session 7: Antimicrobial Resistance</th>
<th>October 24</th>
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*Mid Term Report Due*

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<th>Session 8: Biosurveillance</th>
<th>October 31</th>
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<td>Dr. Jennifer Nuzzo, UPMC</td>
<td>Homework 2 Due</td>
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**Basic Epidemiology**
**Biosurveillance**
**Biosurveillance Systems**
**Laboratory Capacity**
**Social Responses to Biosurveillance**

**Required Readings:**
National Strategy for Biosurveillance (2012)

**Recommended:**

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<th>Session 9: One Health/Zoonotic Disease Detection</th>
<th>November 7</th>
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**Required Readings:**
WHO OIE Operational Framework
Vandermissen and Welbern, Current Initiatives in One Health
Gronvall et al, One Health Security, An Important Component of the Global Health Security Agenda
WHO, OIE, FAO Tripartite Concept
Reservoir Rats, The Economist

*In class exercise: Policy Brief 2*

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<th>Session 10: Risk Communication, Border Control, Mass Gatherings, and Biosecurity</th>
<th>November 14</th>
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<tr>
<td>Mr. Will Chapman</td>
<td>Mr. Michele McKinney (tbd)</td>
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**Required:**
http://www.hstoday.us/briefings/daily-news-analysis/single-article/biological-terrorist-attack-on-us-an-urgent-and-serious-threat/0ce6ebf3524d83c537b1f4f0cc578547.html

https://www.stratfor.com/weekly/weaponized-plague-just-another-jihadist-pipe-dream-0

Sakaguchi et al Assessment of Border Control Measures and Community Containment Measures Used in Japan during the Early Stages of Pandemic (H1N1) 2009

Memish et al, Hajj: infectious disease surveillance and control

Skim:


http://www.osce.org/ea/88238?download=true

Recommended:

Yu et al, Transmission Dynamics, Border Entry Screening, and School Holidays during the 2009 Influenza A (H1N1) Pandemic, China

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<tr>
<th>Session 11: The Global Health Security Agenda</th>
<th>November 21</th>
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<tr>
<td>Review policy documents on Global Health Security Agenda</td>
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<td>Homework 3 Due</td>
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<th>Session 12: National Legislation, Financing, Workforce</th>
<th>November 28</th>
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<td>Session 13: Panel Discussion:</td>
<td>December 5</td>
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Required Reading:

http://www.thelancet.com/infographics/global-health-security


Global health security now (commentary)


Gostin and Friedman, A retrospective and prospective analysis of the west African Ebola virus disease epidemic: robust national health systems at the foundation and an empowered WHO at the apex

Required video:

Frontline Ebola Series

| Session 14: Health Security: Final Presentations | December 19 |