



BIOD-610-DL2: *Building Health System Resilience*
Fall 2020
Online
3.0 Credits

Schar School of Policy and Government
George Mason University

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Office Hours: Virtual office hours via Blackboard Discussion Board, or by appointment for meeting in person or via Skype or phone

Course Description:

This course will provide students with a foundation in how healthcare systems prepare and respond to pandemics, disasters, and biological events. The ability of healthcare systems to respond to biological threats will have impacts at the community, national, and international levels. Health resilience in the United States is a particular challenge given multiple stakeholders, economic factors, and regulatory fragmentation. Students will review case studies, such as Ebola, Hurricane Katrina, 9/11, and COVID-19, to examine the unique challenges of building and sustaining the resilience of the American healthcare and its role in global health security.

Course Objectives:

1. Familiarity with the foundations of healthcare infrastructure for pandemics and biological threats in the United States.
2. Knowledge of key events in U.S. history that have impacted healthcare and public health response.
3. Ability to analyze and critique theories about the healthcare response and to apply those theories as frameworks for healthcare system biopreparedness and readiness within the U.S.
4. Ability to write a literature review that captures thematic dimensions of the research in question and identifies gaps in the literature

Course Format and Process

This course is an online version of a traditional graduate seminar. That means you will not be listening or watching me lecture very much. Instead, the course structure encourages and requires you to spend a good deal of time assessing and responding critically to each reading and to one another's arguments.

This course is also "asynchronous," meaning that we will not be meeting (virtually or in person) at the same time. Instead, everyone can log in to Blackboard to listen to the lectures and make their posts to the Discussion Board when it is convenient for them (as long as they do so by the deadlines for each assignment).

The general weekly flow of the course will be as follows:

- You will typically read and/or watch a brief lecture by me.
- You will read the week's assigned readings.
- You will post a Weekly Analysis Memo on the Discussion Board in response to that week's question. The memos should be at least 500 words long and be based on that week's lecture and assigned readings.
- All Weekly Analysis Memos will be due on midnight EST on Sundays, giving you a full week to read, digest, and respond.
- You will post twice each week to the Up for Debate Forum on the Discussion Board with your take on the implications of the readings for current events or debates. Your first post, due Thursdays at midnight EST of each week, will be an original comment on the topic and should be at least 500 words long. Your second post, due by midnight EST on Sunday, will be a response to someone else's first post and should be at least 250 words long.
- A document detailing the guidelines and grading for the Weekly Analysis Memos and Up For Debate assignments is available in the Assignments section of Blackboard.

Interaction

We will be able to interact several different ways this semester. First, feel free to post questions to the Question and Answer section of the Discussion Board which will serve as my virtual office hours. Do not email me questions related to the readings or lectures; instead post them to the Question and Answer section so the entire class can benefit from our exchange. Second, for communications that you want to be confidential or are directly related to your literature review that would not be relevant to the rest of the class, please email me with your question. I can respond via email or we can set up a time to talk on the phone or via Skype. I will try to respond to all emails within 1 business day.

Assignments and Class Participation

(Weekly Analysis Memos: 35%, Up for Debate: 15%, Research Proposal 10%, Research Paper 40%).

Graduate seminars traditionally require you to be prepared to discuss the readings and actively participate in discussion. Online courses are no different; we just measure participation a bit differently.

For full participation credit students should complete each Weekly Analysis Memo assignment by the deadline and contribute actively to the Up For Debate discussion each week. Participation will be evaluated in terms of timeliness, volume, and overall quality of contributions to class discussion. Posts made after the due date will only receive half credit.

Students are *not expected* to have an extensive background in biodefense, public health, or healthcare. However, students *are expected* to share their thoughts and insights with the class. Those students with direct professional and related knowledge of these subjects are especially encouraged to participate actively in discussion.

The Weekly Analysis Memos will count for 35% of your grade and the Up For Debate: memos will count for 15% of your final grade.

Research Proposal (10%) and Paper (40%)

The major writing assignment for this course is a research paper of approximately 4,000 words (16 double-spaced pages) on an approved topic. The paper has to be about an issue related to healthcare resilience and the implications for biodefense. It can assess the risk posed by vulnerable healthcare infrastructures through specific case examples, like an outbreak or event that we discussed in class. The paper can examine the political and economic dynamics within the United States that make healthcare readiness complex and challenging, or opt to focus on a case study within another country. It is encouraged though, to make comparisons to the United States if focusing on case studies abroad.

A 2-page research proposal describing the topic of your paper and how you plan on conducting your research is due by midnight EST on Sunday, September 27. The research proposal should be uploaded to Blackboard as a Word file labeled as Last Name_First Name_Proposal. The paper should include a clear statement of your research question or topic, how you will conduct your research, and a short bibliography of sources you plan on using. The assigned and suggested readings will provide a foundation for your bibliography, but you are expected to find additional sources. Scholarly and academic books and journal articles and reports by reputable think tanks are preferred although for more recent events media reports are acceptable. Reports and studies published online are acceptable but web sites that simply aggregate information from other sources (such as Wikipedia) are not acceptable. Students are strongly encouraged to make an appointment with me prior to submitting the proposal to discuss the proposed research topic in person, over the phone, via email or Skype (my username is Sasaki57). Please email me at spopesc2@gmu.edu to make the necessary arrangements. The research paper is due at midnight EST on Friday, December 11. The paper should be submitted as a Word file via Blackboard labeled as Last Name_First Name_Research Paper. The paper should be double-spaced with 12-point font, 1-inch margins, numbered pages, and use the Chicago Manual of Style for footnotes. The deadline for the research paper is strict and extensions will not be permitted in the absence of a genuine emergency or documented illness. A late paper will be penalized a full letter grade (for example, from A to B) for every 24 hour period (or fraction thereof) that it is late.

Grading

Your final grade will be calculated as follows:

Weekly Analysis Memo	35%
Up for Debate	15%
Literature Review Proposal	10%
Literature Review	40%

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.

Readings and Audio

This course will incorporate several forms of reading and information sharing – books, articles, peer-reviewed literature, and podcasts. My hopes are to make this not only relevant, but interactive and wholistic in understanding the complexities of healthcare response and biopreparedness. The following books are recommended for purchase from the Mason bookstore or online. E-books are also available for select books (however they have various restrictions on how and for how long you can access the books):

-Emanuel, Ezekiel J, and Inc Recorded Books. *Which Country Has the Best Health Care in the World?* New York: PublicAffairs, 2020.

-Fink, Sheri. *Five Days at Memorial: Life and Death in a Storm-Ravaged Hospital*, 2016.

- Sinead Walsh and Oliver Johnson. *Getting to Zero: A Doctor and a Diplomat on the Ebola Frontline*. 2018. Zed Books.

Aside from the books recommended for purchase, all course materials (unless indicated otherwise), will be available on GMU library's E-Reserves which is accessed via Blackboard. Given the dynamic nature of this subject, additional readings may be assigned during the semester.

Audio – There will be several podcasts sprinkled throughout the semester – all are free and are required listening. Like the literature, these speakers might present competing or contradictory arguments, and it is your job to consider all aspects of this and how it helps shape our understanding (or misunderstanding) of healthcare biopreparedness.

A Note on Work Load

The reading load for this course is heavy. I appreciate that many students work demanding jobs and that it may be difficult to complete all of the reading for each week. The goal for the weekly workload for the course is 8 to 10 hours, with about 75% of your time devoted to reading and 25% of your time devoted to writing. That means you should plan to be reading somewhere between 6 and 7.5 hours each week.

I certainly encourage students to read as much of each book as they can (especially PhD students who will be taking comprehensive exams). However, this is also a good chance for students to hone their “strategic reading skills.” Not every part of every book (even classics) is equally critical to read. Those of us who read for a living develop strategies for getting the most from each work in an efficient manner. Typically, this means starting with the introduction and theory chapters, investigating the data and methods being used, getting a sense of key results from cases or analyses, and then looking for the takeaway conclusions and implications. If you are new to the field this will be more difficult. I give you permission, though, to practice. As long

as you are able to provide high quality responses to the weekly questions and contribute to the preparation of your team's book reviews, I won't ask you how many pages of the book you read!

Blackboard

Access to [MyMason](#) and GMU email are required to participate successfully in this course. Please make sure to update your computer and prepare yourself to begin using the online format BEFORE the first day of class. Check [the IT Support Center](#) website. Navigate to [the Student Support page](#) for help and information about Blackboard. In the menu bar to the left you will find all the tools you need to become familiar with for this course. Take time to learn each tool. Make sure you run a system check a few days before class. Become familiar with the attributes of Blackboard and online learning.

To login in to the course:

1. Go to <http://mymason.gmu.edu>.
2. Login using your NETID and password.
3. Click on the 'Courses' tab.
4. Click on BIOD-610-DL1 (Fall 2020)

Technical Help

If you have difficulty with accessing Blackboard, please contact the ITU Support Center at 703.993.8870 or support@gmu.edu

If you have trouble with using the features in Blackboard, email courses@gmu.edu

University Policies & Information

Academic Integrity

Students must be responsible for their own work, and students and faculty must take on the responsibility of dealing explicitly with violations. The tenet must be a foundation of our university culture. [See <http://oai.gmu.edu/>].

Honor Code

Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code-2/>].

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

MasonLive/Email

Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account. [See <https://masonlivelogin.gmu.edu/login>].

Patriot Pass

Once you sign up for your Patriot Pass, your passwords will be synchronized, and you will use your Patriot Pass username and password to log in to the following systems: Blackboard, University Libraries, MasonLive, myMason, Patriot Web, Virtual Computing Lab, and WEMS. [See <https://password.gmu.edu>].

Responsible Use of Computing

Students must follow the university policy for Responsible Use of Computing. [See <http://universitypolicy.gmu.edu/university-policies/computing/>].

Students with Disabilities

Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu>].

University Libraries

University Libraries provides resources for distance students. [See <http://library.gmu.edu/distance>].

Writing Center

The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. [See <http://writingcenter.gmu.edu>]. You can now sign up for an Online Writing Lab (OWL) session just like you sign up for a face-to-face session in the Writing Center, which means YOU set the date and time of the appointment! Learn more about the [Online Writing Lab \(OWL\)](#).

Counseling and Psychological Services

The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu>].

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the "Buckley Amendment," is a federal law that gives protection to student educational records and provides students with certain rights. [See <http://registrar.gmu.edu/privacy>].

Other Considerations

If there are any issues related to religious holidays, please inform the instructor the first week of class. [See <http://ulife.gmu.edu/calendar/religious-holiday-calendar/>]

SYLLABUS

Week	Topic	Readings and Lectures	Assignments
1 (8/24-8/30)	Introduction	<p><i>Readings/Audio</i></p> <p>Popescu, Saskia. “Hospital biopreparedness in the Looming Presence of SARS-CoV-2/COVID-19.” <i>Health science reports</i> vol. 3,2 e149. 9 Mar. 2020, doi:10.1002/hsr2.149</p> <p>Toner, Eric. “Healthcare Preparedness: Saving Lives.” <i>Health Security</i> 15, no. 1 (February 2017): 8–11. https://doi.org/10.1089/hs.2016.0090.</p> <p><i>Podcast:</i> EPIDEMIC with Dr. Celine Gounder. Season 1, Episode 17 – Getting Prepared</p> <p><i>Lectures</i> Quick Start Video and Introduction</p>	<p>Post an introduction of yourself to the Introduction section of the Discussion Board by 8/28; please respond to at least one other person’s post by 8/30</p>
2 (8/31-9/6)	Overview of U.S. Healthcare System	<p><i>Readings/Audio</i></p> <p>The Commonwealth Fund – U.S. Healthcare from a Global Perspective</p> <p>Ezekiel Emanuel. <i>Which Country Has the World’s Best Healthcare?</i> (PublicAffairs: 2020).</p> <p><i>Lectures</i> Week 2 Video Briefing</p>	<p>Week 2 Weekly Analysis Memo (Due 9/6)</p> <p>Week 2 Up For Debate (1st due 9/3; response due 9/6)</p>
3 (9/7-9/13)	Emergency Preparedness in Healthcare & Critical Relationships	<p><i>Readings/Audio</i></p> <p>Center for Health Security. A Framework for Healthcare Disaster Resilience: A View to the Future. Report, 2018.</p> <p>ASPR 2017-2022 Health Care Preparedness and Response Capabilities. November 2016.</p>	<p>Week 3 Weekly Analysis Memo (Due 9/13)</p> <p>Week 3 Up For Debate (1st due 9/10; response due 9/13)</p>

		<p>Kim, Deborah H. “Emergency Preparedness and the Development of Health Care Coalitions: A Dynamic Process.” <i>The Nursing clinics of North America</i> vol. 51,4 (2016): 545-554. doi:10.1016/j.cnur.2016.07.013</p> <p><i>Lecture</i> Week 3 Video Briefing</p>	
4 (9/14-9/20)	The Intersection of Healthcare and Biodefense	<p><i>Readings/Audio</i></p> <p>The United States National Biodefense Strategy. 2018</p> <p>Bipartisan Report of the Blue Ribbon Study Panel on Biodefense. Biodefense Indicators. December 2016.</p> <p>Popescu, Saskia, and Rebecca Leach. “Identifying Gaps in Frontline Healthcare Facility High-Consequence Infectious Disease Preparedness.” <i>Health Security</i> 17, no. 2 (April 2019): 117–23. https://doi.org/10.1089/hs.2018.0098.</p> <p>Ed Yong. America’s Patchwork Pandemic is Fraying Even Further. <i>The Atlantic</i>. May 20, 2020.</p> <p><i>Podcast</i>: EPIDEMIC w/ Dr. Celine Gounder, Season 1 Episode 15 – Healthcare Coverage in a Pandemic</p> <p><i>Lecture</i> Week 4 Video Briefing</p>	<p>Week 4 Weekly Analysis Memo (EXTRA CREDIT: Due 9/20)</p> <p>Week 4 Up For Debate (1st due 9/20, response due 9/17)</p>
5 (9/21-9/27)	The Political and Economic Obstacles to Enhancing Hospital Bioreparedness	<p><i>Readings/Audio</i></p> <p>Abelson, J., et al. Boom-and-bust federal funding after 9/11 undercut hospitals’ preparedness for pandemics. <i>The Washington Post</i>. May 2, 2020.</p>	<p>Week 5 Weekly Analysis Memo (Due 9/27)</p> <p>Week 5 Up For Debate (1st due 9/24; response due 9/27)</p>

		<p>Hospitals Reported Improved Preparedness for Emerging infectious Diseases After the Ebola Outbreak. U.S. Department of Health and Human Services, Office of the Inspector General. OEI-06-15-00230, October 2018.</p> <p>Kyriacou, Demetrios N., Debra Dobrez, Jorge P. Parada, Justin M. Steinberg, Adam Kahn, Charles L. Bennett, and Brian P. Schmitt. “Cost-Effectiveness Comparison of Response Strategies to a Large-Scale Anthrax Attack on the Chicago Metropolitan Area: Impact of Timing and Surge Capacity.” <i>Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science</i> 10, no. 3 (September 2012): 264–79. https://doi.org/10.1089/bsp.2011.0105</p> <p>Homeland Security and the Private Sector: a CBO Paper. 2004.</p> <p><i>Lecture</i> Week 5 Video Briefing</p>	<p>Research Proposal Due by midnight EST on Sunday, 9/27</p>
<p>6 (9/28-10/4)</p>	<p>International Healthcare Resilience</p>	<p><i>Readings/Audio</i></p> <p>Global Health Security Agenda: Action Packages</p> <p>Foote, Mary M.K., Timothy S. Styles, and Celia L. Quinn. “Assessment of Hospital Emergency Department Response to Potentially Infectious Diseases Using Unannounced Mystery Patient Drills — New York City, 2016.” <i>MMWR. Morbidity and Mortality Weekly Report</i> 66, no. 36 (September 15, 2017): 945–49. https://doi.org/10.15585/mmwr.mm6636a2.</p> <p>Camacho, A et al. “Potential for large outbreaks of Ebola virus</p>	<p>Week 6 Weekly Analysis Memo (Due 10/4)</p> <p>Week 6 Up For Debate (1st due 10/1; response due 10/4)</p>

		<p>disease.” <i>Epidemics</i> vol. 9 (2014): 70-8. doi:10.1016/j.epidem.2014.09.003</p> <p>Hitchcock, Penny, Allison Chamberlain, Megan Van Wagoner, Thomas V. Inglesby, and Tara O’Toole. “Challenges to Global Surveillance and Response to Infectious Disease Outbreaks of International Importance.” <i>Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science</i> 5, no. 3 (September 2007): 206–27. https://doi.org/10.1089/bsp.2007.0041</p> <p>Meyer, Diane, Elizabeth E. Cameron, Jessica Bell, and Jennifer B. Nuzzo. “The Road to Achieving Global Health Security: Accelerating Progress and Spurring Urgency to Fill Remaining Gaps.” <i>Health Security</i> 18, no. S1 (January 1, 2020): S-1-S-3. https://doi.org/10.1089/hs.2019.0147.</p> <p>Xingming, Jianshi Huang, and Hui Zhang. “An Analysis of Hospital Preparedness Capacity for Public Health Emergency in Four Regions of China: Beijing, Shandong, Guangxi, and Hainan.” <i>BMC Public Health</i> 8, no. 1 (December 2008): 319. https://doi.org/10.1186/1471-2458-8-319.</p> <p>Djalali, Ahmadreza, Maaret Castren, Hamidreza Khankeh, Dan Gryth, Monica Radestad, Gunnar Öhlen, and Lisa Kurland. “Hospital Disaster Preparedness as Measured by Functional Capacity: A Comparison between Iran and Sweden.” <i>Prehospital and Disaster Medicine</i> 28, no. 5 (October 2013): 454–61. https://doi.org/10.1017/S1049023X13008807.</p>	
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7 (10/5-10/11)	Case study: Ebola in Dallas	<p><i>Readings/Audio</i></p> <p>Book: Sinead Walsh and Oliver Johnson. <i>Getting to Zero: A Doctor and a Diplomat on the Ebola Frontline</i>. 2018. Zed Books.</p> <p>Meyer, Diane, Tara Kirk Sell, Monica Schoch-Spana, Matthew P. Shearer, Hannah Chandler, Erin Thomas, Dale A. Rose, Eric G. Carbone, and Eric Toner. “Lessons from the Domestic Ebola Response: Improving Health Care System Resilience to High Consequence Infectious Diseases.” <i>American Journal of Infection Control</i> 46, no. 5 (May 2018): 533–37. https://doi.org/10.1016/j.ajic.2017.11.001.</p> <p>Morgan, Daniel J., Barbara Braun, Aaron M. Milstone, Deverick Anderson, Ebbing Lautenbach, Nasia Safdar, Marci Drees, et al. “Lessons Learned From Hospital Ebola Preparation.” <i>Infection Control & Hospital Epidemiology</i> 36, no. 06 (June 2015): 627–31. https://doi.org/10.1017/ice.2015.61.</p> <p>Smit, Michael A., Kenneth A. Rasinski, Barbara I. Braun, Linda L. Kusek, Aaron M. Milstone, Daniel J. Morgan, and Leonard A. Mermel. “Ebola Preparedness Resources for Acute-Care Hospitals in the United States: A Cross-Sectional Study of Costs, Benefits, and Challenges.”</p>	<p>Week 7 Weekly Analysis Memo (Due 10/11)</p> <p>Week 7 Up For Debate (1st due 10/8; response due 10/11)</p>

		<p><i>Infection Control & Hospital Epidemiology</i> 38, no. 4 (April 2017): 405–10. https://doi.org/10.1017/ice.2017.6.</p> <p>Chevalier, Michelle S et al. “Ebola virus disease cluster in the United States--Dallas County, Texas, 2014.” <i>MMWR. Morbidity and mortality weekly report</i> vol. 63,46 (2014): 1087-8.</p> <p>Extra: life on the ground during 2014/2016 Ebola outbreak</p> <p>Lecture Week 7 Video Briefing</p>	
<p>8 (10/13-10/18) *Fall break- no classes 10/12</p>	<p>Case study: Amerithrax</p>	<p><i>Readings/Audio</i></p> <p>Cosgrove, Sara E., Trish M. Perl, Xiaoyan Song, and Stephen D. Sisson. “Ability of Physicians to Diagnose and Manage Illness Due to Category A Bioterrorism Agents.” <i>Archives of Internal Medicine</i> 165, no. 17 (September 26, 2005): 2002–6. https://doi.org/10.1001/archinte.165.17.2002.</p> <p>Wetter, D C, W E Daniell, and C D Treser. “Hospital Preparedness for Victims of Chemical or Biological Terrorism.” <i>American Journal of Public Health</i> 91, no. 5 (May 2001): 710–16.</p> <p>Henning, K., Brennan, P., Hoegg, C., O'Rourke, E., Dyer, B., & Grace, T. (2004). Health System Preparedness for Bioterrorism: Bringing the Tabletop to the Hospital. <i>Infection Control & Hospital Epidemiology</i>, 25(2), 146-155. doi:10.1086/502366</p>	<p>Week 8 Weekly Analysis Memo (Due 10/18)</p> <p>Week 8 Up For Debate (1st due 10/15; response due 10/18)</p> <p>*Extra credit – will announce**</p>

		<p><i>Lecture</i> Week 8 Video Briefing</p>	
9 (10/19-10/25)	<p>Case study: Natural and Manmade disasters- Hurricane Katrina, 9/11</p>	<p><i>Readings/Audio</i></p> <p>Book: Fink, Sheri. <i>Five Days at Memorial: Life and Death in a Storm-Ravaged Hospital</i>, 2016.</p> <p>Toner, Eric S., Meghan McGinty, Monica Schoch-Spana, Dale A. Rose, Matthew Watson, Erin Echols, and Eric G. Carbone. "A Community Checklist for Health Sector Resilience Informed by Hurricane Sandy." <i>Health Security</i> 15, no. 1 (February 2017): 53–69. https://doi.org/10.1089/hs.2016.0079.</p> <p>Simon, R, and S Teperman. "The World Trade Center attack. Lessons for disaster management." <i>Critical care (London, England)</i> vol. 5,6 (2001): 318-20. doi:10.1186/cc1060</p> <p>Tamber PS, Vincent JL. The World Trade Center attack. Lessons for all aspects of health care. <i>Crit Care</i>. 2001;5(6):299-300. doi:10.1186/cc1053</p> <p><i>Lecture</i> Week 9 Video Briefing</p>	<p>Week 9 Weekly Analysis Memo (Due 10/25)</p> <p>Week 9 Up For Debate (1st due 10/22; response due 10/25)</p>
10 (10/26-11/1)	<p>Case study: SARS-CoV-1 and MERS-CoV</p>	<p><i>Readings/Audio</i></p> <p>Srinivasan, A., D. B. Jernign, L. Liedtke, and L. Strausbaugh. "Hospital Preparedness for Severe Acute Respiratory Syndrome in the United States: Views from a National Survey of Infectious Diseases Consultants." <i>Clinical Infectious Diseases</i> 39, no. 2 (July 15, 2004): 272–74. https://doi.org/10.1086/421777.</p>	<p>Week 10 Weekly Analysis Memo (Due 11/1)</p> <p>Week 10 Up For Debate (1st due 10/29; response due 11/1)</p>

		<p>Kim K, Tandi T, Choi J, Moon J, Kim M. Middle East respiratory syndrome coronavirus (MERS-CoV) outbreak in South Korea, 2015: epidemiology, characteristics and public health implications. <i>J Hosp Infect.</i> 2017;95(2):207-213. 10.1016/j.jhin.2016.10.008</p> <p>Webb G, Blaser MJ, Zhu H, Ardal S, Jianhong W. Critical role of nosocomial transmission in the Toronto SARS outbreak. <i>Math Biosci Eng.</i> 2004;1(1):1-13. 10.3934/mbe.2004.1.1.</p> <p>Learning from SARS: Preparing for the Next Disease Outbreak: Workshop Summary. Institute of Medicine (US) Forum on Microbial Threats; Knobler S, Mahmoud A, Lemon S, Mack A, Sivitz L, Oberholtzer K., Washington (DC): National Academies Press (US); 2004. The National Academies Collection: Reports funded by National Institutes of Health. Ontario issues final SARS Commission report Webster, Paul <i>The Lancet</i>, Volume 369, Issue 9558, 264</p> <p>Chō SY, Kang JM, Ha YE, et al. MERS-CoV outbreak following a single patient exposure in an emergency room in South Korea: an epidemiological outbreak study. <i>Lancet.</i> 2016;388(10048):994-1001</p> <p><i>Lecture</i> Week 10 Video Briefing</p>	
11 (11/2-11/8)	Case study: SARS-CoV-2/COVID-19	<p><i>Readings/Audio</i></p> <p>Li, Ruoran, Caitlin Rivers, Qi Tan, Megan B. Murray, Eric Toner, and Marc Lipsitch. “Estimated Demand</p>	Week 11 Weekly Analysis Memo (Due 11/8)

		<p>for US Hospital Inpatient and Intensive Care Unit Beds for Patients With COVID-19 Based on Comparisons With Wuhan and Guangzhou, China.” <i>JAMA Network Open</i> 3, no. 5 (May 6, 2020): e208297. https://doi.org/10.1001/jamanetworkopen.2020.8297.</p> <p>Popescu, Saskia. “Roadblocks to Infection Prevention Efforts in Health Care: SARS-CoV-2/COVID-19 Response.” <i>Disaster Medicine and Public Health Preparedness</i>, March 30, 2020, 1–3. https://doi.org/10.1017/dmp.2020.55.</p> <p>Chopra, Vineet, Eric Toner, Richard Waldhorn, and Laraine Washer. “How Should U.S. Hospitals Prepare for Coronavirus Disease 2019 (COVID-19)?” <i>Annals of Internal Medicine</i> 172, no. 9 (May 5, 2020): 621–22. https://doi.org/10.7326/M20-0907.</p> <p>Saskia Popescu. Arizona reopened too fast. Epidemiologists knew it, but we couldn’t stop it. <i>Washington Post</i>. July 16, 2020.<i>en</i></p> <p><i>Lecture</i> Week 11 Video Briefing</p>	<p>Week 11 Up For Debate (1st due 11/5; response due 11/8)</p>
<p>12 (11/9-11/15)</p>	<p>U.S. Measures to Enhance Healthcare Readiness</p>	<p><i>Readings/Audio</i></p> <p>ASPR – Regional Treatment Network for Ebola and Other Special Pathogens. November 2017.</p> <p>Kratochvil, Christopher J et al. “The National Ebola Training and Education Center: Preparing the United States for Ebola and Other Special Pathogens.” <i>Health</i></p>	<p>Week 12 Weekly Analysis Memo (Due 11/15)</p> <p>Week 12 Up For Debate (1st due 11/12; response due 11/15)</p>

		<p><i>security</i> vol. 15,3 (2017): 253-260. doi:10.1089/hs.2017.0005</p> <p>Hospital Preparedness Program (HPP)</p> <p>Hospital Rising to the Challenge – Evaluation Report. Center for Biosecurity of UPMC. March 2009.</p> <p>Podcast: America Dissected: Coronavirus, Season 2, Episode 20</p> <p><i>Lecture</i> Week 12 Video Briefing</p>	
13 (11/16-11/22)	Neglected Dimensions of Resilience	<p><i>Readings/Audio</i></p> <p>Evans, Nicholas, and Thomas Inglesby. “Biosecurity and Public Health Ethics Issues Raised by Biological Threats.” In <i>The Oxford Handbook of Public Health Ethics</i>, by Nicholas Evans and Thomas Inglesby, 773–85. edited by Anna C. Mastroianni, Jeffrey P. Kahn, and Nancy E. Kass. Oxford University Press, 2019. https://doi.org/10.1093/oxfordhb/9780190245191.013.67.</p> <p>Emanuel, Ezekiel J., Govind Persad, Ross Upshur, Beatriz Thome, Michael Parker, Aaron Glickman, Cathy Zhang, Connor Boyle, Maxwell Smith, and James P. Phillips. “Fair Allocation of Scarce Medical Resources in the Time of Covid-19.” <i>New England Journal of Medicine</i> 382, no. 21 (May 21, 2020): 2049–55. https://doi.org/10.1056/NEJMSb2005114.</p> <p>Pugel, Betsy, Saskia Popescu, and Syra Madad. “Restricted and Uncontained: Health Considerations in the Event of Loss of Containment</p>	<p>Week 13 Weekly Analysis Memo (Due 11/22)</p> <p>Week 13 Up For Debate (1st due 11/19; response due 11/22)</p>

		<p>During the Restricted Earth Return of Extraterrestrial Samples.” <i>Health Security</i> 18, no. 2 (April 1, 2020): 132–38. https://doi.org/10.1089/hs.2019.0088.</p> <p>Maryn McKenna. Amid Coronavirus Fears, A Mask Shortage Could Spread Globally. WIRED. February 4, 2020.</p> <p><i>Lecture</i> Week 13 Video Briefing</p>	
14 (11/23-11/29)	NO CLASS (THANKSGIVING)	NO CLASS (THANKSGIVING)	NO CLASS (THANKSGIVING)
15 (11/30-12/5)	Future of Healthcare Resilience	<p><i>Readings/Audio</i> Spencer, Craig. “Having and Fighting Ebola — Public Health Lessons from a Clinician Turned Patient.” <i>New England Journal of Medicine</i> 372, no. 12 (March 19, 2015): 1089–91. https://doi.org/10.1056/NEJMp1501355.</p> <p>Berwick, Donald M., and Kenneth Shine. “Enhancing Private Sector Health System Preparedness for 21st-Century Health Threats: Foundational Principles From a National Academies Initiative.” <i>JAMA</i> 323, no. 12 (March 24, 2020): 1133. https://doi.org/10.1001/jama.2020.1310.</p> <p>Sverdlow, David L., and Lyn Finelli. “Preparation for Possible Sustained Transmission of 2019 Novel Coronavirus: Lessons From Previous Epidemics.” <i>JAMA</i> 323, no. 12 (March 24, 2020): 1129. https://doi.org/10.1001/jama.2020.1960.</p> <p><i>Lecture</i> Week 15 Video Briefing</p>	<p>Week 14 Weekly Analysis Memo (Due 12/5)</p> <p>Week 14 Up For Debate (1st due 12/3; response due 12/5)</p>

12/11	Literature Review	None	Research Paper due midnight EST on Friday, December 11
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