MWSU4433.2H1 Honors Seminar: Bioterrorism (Spring 2021)

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**Office Hours by Appointment Only:** M 9:00 – 10:00 am; T 10:00 – 12:00 am; W 10:00 am – 12:00 pm

**Class sessions:** Tuesday/Thursdays 8:00 – 9:20am, Dillard 131

**Course Overview**

The term “bioterrorism” provokes a wide array of images in the minds of the public, especially in today’s chaotic world. Many of us are now forced to think about things that at one time only happened someplace else in the world. Beginning in 2019, we became witnesses to the most significant event of our lives—the SARS CoV-2 pandemic. With all of the information out there, it is hard to discuss the subject of bioterrorism in any depth; this class therefore makes no attempt to do so. Rather, my goal is to give you enough information to prepare you personally and professionally to work in an environment where terrorism is a real, though perhaps small, reality. We will examine the six major agents believed to have weapon potential alongside pandemic diseases such as influenza and SARS-CoV-2, examine some of the science of offensive and defensive capabilities, examine existing policies regarding national security and bioweapons, and think about policy and ethical problems associated with bioterrorism. It will be assumed that all students believe the use of bioweapons is morally reprehensible.

**Purpose of Syllabus**

The purpose of the syllabus is to inform you of course expectations, policies, and content. Ignorance of course policies because you did not read your syllabus will not be an acceptable excuse for not adhering to these policies. Because the syllabus is also available online, you cannot lose it. By accepting this syllabus and remaining enrolled in the course, you affirm that you understand the contents of this syllabus and that you will adhere to its requirements.

**Required Materials**

1. There are many fine books on bioterrorism on the market, but none of them are required. Students are encouraged to select their own books and read them.
2. Access to **D2L** and other web resources as instructed IS REQUIRED. All of the papers we will discuss in class will be uploaded to D2L.
3. Word or the ability to convert to Word IS REQUIRED. Please do NOT send me Google Docs or files generated by other word processors.

**War Game**

The culmination of the semester is a live-action war game. Students will be assigned “roles” (governmental, military, medical, civilian) within the community by lottery. As a class, with each person playing their role, you will determine both the nature of the agent released into a population and devise appropriate solutions. As the game master, I will funnel information to you both in and outside of class and document how you respond. Your responses will shape the game, and so you will need to do a lot of careful thinking and working with others in the context of your appropriate role-relationships to avoid killing off your attacked population (which counts as a loss). Following the conclusion of the game, each student will prepare an **Attack Analysis** of the game and its relative success or failure.

**Assignments**

In addition to the Attack Analysis, there will be several small/medium sized homework assignments scattered throughout the semester. These assignments are designed to get you to think about your surroundings in a reasonable way to consider how public policy shapes our ability to respond to biological threats.

**Blue-Book Exam**

There will be one (1) exam covering the material discussed in the course. The exam will cover all aspects of the course material (papers and discussions) and will thus be comprehensive.

**Grading**

Grades will be given only on final drafts of assignments and papers. Because what you turn in is supposed to be a final draft (of more than one working draft), you will not get to rewrite it once it is turned in. Please do not take this to mean you can turn everything in late, either. You are expected to participate actively in classroom discussions and during the wargame. All grades are individual grades, but failure to participate in the wargame in particular will have a class-wide impact.

Grades will be assessed via straight percentage with 90% and above = A, 80-89% = B, 70-79% = C. Each assignment will receive a grade percent and points will be tallied at the end for an overall grade percent (no one assignment will weigh any more than another).

**SARS-CoV-2/Influenza Statement**

SARS-CoV-2 is a real infectious agent that should not be taken lightly. SARS-CoV-2 can and does sometimes kill those it infects. Symptoms for SARS-CoV-2 include (but are not limited to) fever greater than or equal to 100.0 °F, cough, shortness of breath or difficulty breathing, sore throat, loss of taste or smell, chills, muscle pain, and headache. Many of these symptoms overlap with those of influenza. Many people do not show symptoms, yet they are infectious. If you have a fever, you should NOT be coming to class. If you are demonstrably ill, you should NOT be coming to class. For your own safety and the safety of those around you, MSU is requiring daily self-checks for health, mask-wearing, and other forms of sanitation. You should adhere to all university requirements.

All members of the MSU Texas community should undergo daily health screening assessments, which include checking temperature. **For my class, all students are REQUIRED to download and use one of the two Covid-19 self-checkers listed below**:

1. The **MSU Safety App** provides a link to a COVID-19 screening assessment. The MSU Safety App is available on the [Apple Store](https://webmail.msutexas.edu/owa/redir.aspx?C=i9mJSc_F7YqUs3F9IlwF56NBEJm_BNpe_RXPYAgcUjotyO35pSHYCA..&URL=https%3a%2f%2fapps.apple.com%2fus%2fapp%2fmsu-safety%2fid1141951126) or [Google Play App Store](https://webmail.msutexas.edu/owa/redir.aspx?C=gedn0PLEN-bh3x_pTUAby5N2vnJLlLH_U2k26OmC5VctyO35pSHYCA..&URL=https%3a%2f%2fplay.google.com%2fstore%2fapps%2fdetails%3fid%3dcom.cutcom.apparmor.mwsu%26hl%3den_US).
2. The Centers for Disease Control and Prevention (CDC) offers a [Coronavirus Self-Checker](https://webmail.msutexas.edu/owa/redir.aspx?C=itrvA_1oThWjP1X_Sx84q-uEWAkCV6KtSjUQLX959fktyO35pSHYCA..&URL=https%3a%2f%2fwww.cdc.gov%2fcoronavirus%2f2019-ncov%2fsymptoms-testing%2fsymptoms.html). If taking the survey from your phone, the best way to capture the results is to take a picture or screenshot. If taking from a computer, you can screenshot the results or save as a pdf file.

**Masks are mandatory on campus and in my classroom. You must wear a mask for the duration of the class period. You must wear your mask properly! That means you must wear it over your nose as well as your mouth. Refusal to wear a mask puts everyone at risk and you will be asked to leave the class and not return until you are wearing a mask and wearing it properly.**

MSU has developed a [MSU Texas Return to Campus website](https://webmail.msutexas.edu/owa/redir.aspx?C=f125CX5YId-0uzdZ-HYEZZaO3xoX5m8IpF2PQgeZ0J8tyO35pSHYCA..&URL=https%3a%2f%2fmsutexas.edu%2freturn-to-campus%2fmsu-texas-commitment.php) in addition to a Covid-19 dedicated page that will provide you with additional information regarding academic instruction, health and safety, campus life, and business operations. You should make a habit of checking these sites every day for new information.

It is possible that MSU will need to return to online-only instruction. You should be prepared for this. Students should make every effort to ensure access to a personal computer and internet service.

**Late Work**

Absolutely NO late work will be accepted. Deadlines are hard deadlines. There will be no make-ups nor extra credit given to compensate for missing assignments.

**Attendance and Participation**

It is expected that students will make every effort to attend class and participate fully in classroom discussions. Assignments are not optional and students are expected to do them even if you are asked to write about something contrary to your own views and beliefs. Every student in this class has the fundamental, democratic right to express their opinions without fear of retribution or attack from other students and everyone should feel safe to say what they feel. Since YOU have YOUR right to speak your mind, so does EVERYONE ELSE. Disagreements are fine, but we will all act like civilized adults when discussing them.

Attendance is vital to this class, especially during the wargame. Students are only allowed 3 absences, and absences during the war game affect everyone, not just you. If you cannot get out of bed, you should not be in this class. If you have a truly legitimate reason for missing class (you are verifiably ill, you are in isolation/quarantine, in the hospital, etc.), then you need to email me with proof. Unexcused absences and more than 3 absences for any reason will result in a loss of 1 grade category from your final grade.

Participation means turning in assignments on time, active involvement in class discussions, and full effort given during the wargame sessions. Neither the course nor the wargame can succeed if students do not participate. Please read all assigned articles, etc. prior to coming to class so that you can discuss them.

**Instructor Class Policies**

1. Do not walk through the classroom or leave once class has begun (exception: sudden illness) and **NEVER WALK IN FRONT OF ME ONCE I HAVE BEGUN TO LECTURE.**
2. **Be respectful of other students.** Do not talk while other students are talking (or me), but listen to what is being said. You will be given your turn to voice your opinion so there is no need to talk over other students.
3. Do not play games on your electronic devices or play with your social media sites, do homework for other classes, read books or newspapers, sleep, listen to music, etc. during the lecture; pay attention to the lecture!
4. Do not eat or drink in class unless you can do so quietly.
5. **Turn off or silence (note: vibrate is not the same as silent) all cell phones, pagers, music devices, and other electronic devices that make noise or have the potential to disrupt the class before you walk into the room.** NO cell phones are permitted to be out and/or in my (or your) sight in this class UNLESS you are given permission to use it.
6. No laptops/tablets are allowed UNLESS you are using them for access to course materials. ALL ear buds, blue-tooth buds, and headphones to phones and music devices must be turned OFF during class AND REMOVED FROM YOUR HEAD and put in your backpacks.

**University Teams and Organizations**

All members of in-season sports teams or other campus organizations who will be missing class because of university sanctioned events MUST present to me a written statement on university letterhead and signed by a university official indicating those dates that will be missed because of travel or participation in the university-sponsored event. Athletics documentation must be presented to me within the first 2 weeks of the beginning of the semester. Other documentation (such as for theater, etc.) must be presented to me at least one week prior to the time that will be missed. NOTE: if you KNOW you will be missing more than 3 classes during the semester, you MUST come talk with me the first week.

**Services for Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. The instructor then needs to be notified by the student of the nature of these accommodations. This notification will take the form of an official letter obtained from DSS by the student and given to the instructor. Every effort should be made to provide me with this documentation within the first 2 weeks of the semester to avoid losing accommodations because you failed to provide proper notification in a timely manner. It is always the responsibility of the student to arrange accommodations with DSS. Students with disabilities must still take their exams on the same day as the rest of the class. For more details, please go to Disability Support Services.

ALL COVID ACCOMMODATIONS MUST BE ACCOMPANIED BY DOCUMENTATION FROM DSS. You may not stay home “just because”. Students with DSS accommodations will likely need to do all quizzes and exams online and submit written work via scanned pdf.

**College Policies**

1. **Campus Carry Rules/Policies:** Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University’s Campus Carry homepage. If you have questions or concerns, please contact MSU Chief of Police Patrick Coggins at [patrick.coggins@mwsu.edu](mailto:patrick.coggins@mwsu.edu).
2. **Smoking/Tobacco Policy:** College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.
3. **Alcohol and Drug Policy:** To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.
4. **University Code of Conduct:** In general, students are to attend all meetings of all classes; instructors may drop students for excessive absences, indifference, disruptive behavior, or failure to complete class assignments; students are prohibited from cheating, plagiarizing, or colluding. Students are expected to have read the Student Handbook.
5. **Academic Dishonesty:** Cheating, plagiarism, and collusion (as well as several other forms of conduct) are all strictly prohibited at MSU. Please read the MSU Student Handbook definitions of cheating, plagiarism, and collusion and MAKE SURE that you do not engage in any of these behaviors. If you are unclear on what may count as cheating, plagiarism, or collusion after reading the material below, please see the instructor or the Dean of Students.
   1. **Student Honor Creed:** “As an MSU Student, I pledge not to lie, cheat, steal, or help anyone else do so."
   2. **See additional note below on plagiarism.** Plagiarism is NEVER ok.
6. **Safe Zones Statement:** The professor considers this classroom to be a place where you will be treated with respect as a human being regardless of gender, race, ethnicity, national origin, religious affiliation, sexual orientation, political beliefs, age, or ability. Additionally, diversity of thought is appreciated and encouraged, provided you can agree to disagree. It is the professor's expectation that ALL students consider the classroom a safe environment.
7. **Instructor Drops:** According to the MSU Student Handbook, “An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct.” For the purposes of this course, “consistently failing to meet class assignments” includes consistently not turning in assigned work or turning in work that consistently receives a failing grade.
8. **Intellectual Property:** By enrolling in this course, the student expressly grants MSU a “limited right” in all intellectual property created by the student for the purpose of this course. The “limited right” shall include but shall not be limited to the right to reproduce the student’s work product to verify originality and authenticity, and for educational purposes.

**Problems with the Mechanics of Writing**

You will be asked to write several papers in this course. If you require help with the basic mechanics of writing, you will need to work with the Writing Center. I will help you with the content of your papers, but I will not typically edit student work at the sentence level since that is what YOU are supposed to be learning to do. You may work with other students in the class on issues of grammar, etc., or with anyone else willing to work with you (please do not bug other faculty members), but ultimately you should have learned basic writing skills long before now. Final copies of assignments that are turned in with basic writing problems will be graded harshly and will result in poor grades in the class.

**General Formatting Requirements**

All assignments must be typed using the following formatting:

* 12pt Times New Roman font
* Double-spaced
* 1-inch margins all the way around
* Page numbers on all pages
* Justified left margin, ragged right margin (do NOT use full justification)
* In the header, your name, date, title, and assignment number

All assignments are to include a suitably descriptive title and should be consistent throughout for things most people never pay attention to, such as using or not using the Oxford (terminal) comma. Consistency is as important as the words on the page.

**Plagiarism**

All forms of plagiarism are to be consciously and methodically avoided at all costs. Plagiarism is NEVER acceptable and there is no such thing as ‘accidental’ plagiarism. Any assignment submitted in this class that is found to contain any form of plagiarism, no matter how minor an infraction, will receive a zero for a grade and you will receive no participation credit for that assignment. A second infraction will earn you an “F” in the course.

**Special Note:** This syllabus and the schedule herein is subject to change by the instructor should circumstances arise that require such changes.

**Schedule**

| **Week** | **Date** | **Topic[[1]](#footnote-1)** |
| --- | --- | --- |
| 1 | Jan 12 | Course Introduction, Syllabus, and Wargame Introduction |
| Jan 14 | **History of Bioterrorism 1**  Riedel S. (2004) “Biological warfare and bioterrorism: a historical review.” *Baylor University Medical Center Proceedings*. 17(4): 400 – 406.  Wheelis M. (2002) “Biological Warfare at the 1346 Siege of Caffa.” *Emerging Infectious Diseases*. 8(9): 971 – 975. |
| 2 | Jan 19 | **History of Bioterrorism 2**  Marion N and Scanlon J. (2011) “Mass death and mass illness in an isolated Canadian town: coping with pandemic influenza in Kenora, Ontario, in 1918 – 1921.” *Mortality*. 16(4): 325 – 342.  Takahashi H, Keim P, Kaufmann AF, Keys C, Smith KL, Taniguchi K, Inouye S, Kurata T. (2004) “*Bacillus anthracis* Incident, Kameido, Tokyo, 1993.” *Emerging Infectious Diseases*. 10(1): 117 – 120.  Glatter KA and Finkelman P. (2020) “History of the Plague: An Ancient Pandemic for the Age of COVID-19.” *The American Journal of Medicine*. (Article in Press). |
| Jan 21 | **Biological Agents 1**  Rosenbloom M, Leikin JB, Vogel SN, Chaudry ZA. (2002) “Biological and Chemical Agents: A Brief Synopsis.” *American Journal of Therapeutics*. 9: 5 – 14. |
| 3 | Jan 26 | **Biological Agents 2**  Guth S, Hanley KA, Althouse BM, Boots M. (2020) “Ecological processes underlying the emergence of novel enzootic cycles: Arboviruses in the neotropics as a case study.” *PLoS Neglected Tropical Diseases*. 14(8): e0008338.  Johnson CK, Hitchens PL, Pandit PS, Rushmore J, Evans TS, Young CCW, Doyle MM. (2020) “Global shifts in mammalian population trends reveal key predictors of virus spillover risk.” *Proceedings of the Royal Society B*. 287: 20192736. |
| Jan 28 | **Biological Agents 3**  Fernandez-Montero JV, Soriano V, Barreiro P, de Mendoza C, Artacho MA. (2020) “Coronavirus and other airborne agents with pandemic potential.” *Current Opinion in Environmental Science and Health*. 17: 41 – 48.  Barh D, Andrade BS, Tiwari S, Giovanetti M, Goes-Neto A, Alcantara LCJ, Azevedo V, Ghosh P. (2020) “Natural selection versus creation: a literature review on the origin of SARS-CoV-2.” *Le Infezioni in Medicina*. 3: 302 – 313.  Grubaugh ND, Hanage WP, Rasmussen AL. (2020) “Making Sense of Mutation: What D614G Means for the COVID-19 Pandemic Remains Unclear.” *Cell*. 182: 794 – 795.  Korber B, Fischer WM, Gnanakaran S, et al. (2020) “Tracking Changes in SARS-CoV-2 Spike: Evidence that D614G Increases Infectivity of the COVID-19 Virus.” *Cell*. 182: 812 – 827. |
| 4 | Feb 2 | **Bioterrorism Responses**  Adalja AA, Toner E, and Inglesby TV. (2015) “Clinical Management of Potential Bioterrorism-Related Conditions.” *The New England Journal of Medicine*. 372: 954 – 962.  Barbera J, Macintyre A, Gostin L, Inglesby T, O’Toole T, DeAtley C, Tonat K, Layton M. (2001) “Large-Scale Quarantine Following Biological Terrorism in the United States.” *Journal of the American Medical Association*. 286(21): 2711 – 2717.  Lacey C. (2003) “Abuse of Quarantine Authority: The Case for a Federal Approach to Infectious Disease Containment.” *The Journal of Legal Medicine*. 24: 199 – 214. |
| Feb 4 | **Is the Threat Real?**  Gottschalk R and Preiser W. (2005) “Bioterrorism: is it a real threat?” *Medical Microbiology and Immunology*. 194: 109 – 114.  Jansen HJ, Breeveld FJ, Stijnis C, Grobusch MP. (2014) “Biological warfare, bioterrorism, and biocrime.” *Clinical Microbiology and Infection.* 20: 488 – 496.  Suk JE, Zmorzynska A, Hunger I, Biederbick W, Sasse J, Maidhof H, Semenza JC. (2011) “Dual-Use Research and Technological Diffusion: Reconsidering the Bioterrorism Threat Spectrum.” *PLoS Pathogens*. 7:(1): e1001253. |
| 5 | Feb 9 | **Domestic Terrorism 1**  Nunn, S. (2007) “Incidents of Terrorism in the United States, 1997 – 2005.” The Geographical Review. 97(1): 89 – 111.  Margariti S. (2019) “Defining International Terrorism to Protect Human Rights in the Context of Counter-terrorism.” Security and Human Rights. 29: 173 – 198. |
| Feb 11 | **Domestic Terrorism 2**  United States Court of Appeals, Tenth Circuit. *United States of America v. Timothy James McVeigh*. No. 97-1287. Decided: September 8, 1998.  Hoeflich MH. (2019) “Reflections Upon Terrorism, Militias, Law, and the Judicial System: An Essay.” *Kansas Law Review*. 67: 713 – 725.  Hoffman AM. (2004) “Voice and Silence in Terrorist Campaigns.” Conference Papers—American Political Science Association 2004 Annual Meeting, Chicago, IL. |
| 6 | Feb 16 | **Domestic Terrorism 3**  Day TG (2003) “Autumn 2001 Anthrax Attack on the United States Postal Service: The Consequences and Response.” Journal of Contingencies and Crisis Management. 11(3): 110 – 117.  U.S. Department of Justice. (2010) “Amerithrax Investigative Summary.” (FOA)  Bush LM and Perez MT. (2012) “The Anthrax Attacks 10 Years Later.” *Annals of Internal Medicine*. 156: 41 – 44.  Hupert N, Bearman GML, Mushlin AI, Callahan MA. (2003) “Accuracy of Screening for Inhalational Anthrax after a Bioterrorist Attack.” Annals of Internal Medicine. 139: 337 – 345. |
| Feb 18 | **Domestic Terrorism 4**  Vertigans S. (2007) “Beyond the Fringe? Radicalisation within the American Far-Right.” *Totalitarian Movements and Political Religions*. 8(3 – 4): 641 – 659.  O’Brien SP and Haider-Markel DP. (1998) “Fueling the Fire: Social and Political Correlates of Citizen Militia Activity.” *Social Science Quarterly*. 79(2): 456 – 465.  Wood SD, Jakubek Jr. JT, Kelly K. (2015) “You’ve got to fight to be white: the rural foundation of the new militia for race control.” *Contemporary Justice Review*. 18(2): 215 – 230. |
| 7 | Feb 23 | **Policy Playbooks 1**  US Department of Homeland Security. (2019) “National Response Framework.” 4th edition.  U.S. Department of Homeland Security. (2020) “Homeland Threat Assessment.” ([www.dhs.gov](http://www.dhs.gov))  US Department of Health and Human Services. (2017) “Pandemic Influenza Plan.” |
| Feb 25 | **Policy Playbooks 2**  The Center for Law and the Public’s Health at Georgetown and Johns Hopkins Universities. (2001) “The Model State Emergency Health Powers Act.” |
| 8 | Mar 2 | **Policy Playbooks 3**  World Health Organization. (2006) “Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures.” *Emerging Infectious Diseases*. 12(1): 88 – 94.  Knobler SL, Mahmoud AAF, Pray LA. (2002) “Biological Threats and Terrorism: Assessing the Science and Response Capabilities, Workshop Summary.” *Institutes of Medicine*. (book)  Wurtz N, Grobusch MP, Raoult D. (2014) “Negative impact of laws regarding biosecurity and bioterrorism on real diseases.” Clinical Microbiology and Infections. 20: 507 – 515. |
| Mar 4 | **The Problem of Modeling**  Pandemic Influenza Outbreak Research Modelling Team (2009) “Modelling an influenza pandemic: A guide for the perplexed.” Canadian Medical Association Journal. 181(3-4): 171 – 173.  Rhodes T, Lancaster K, Lees S, Parker M. (2020) “Modelling the pandemic: attuning models to their contexts.” British Medical Journal Global Health. 5: e002914. |
| 9 | Mar 9 | **Ethics 1**  Crane JS, McCluskey JD, Johnson GT, Harbison RD. (2010) “Assessment of community healthcare providers ability and willingness to respond to emergencies resulting from bioterrorist attacks.” *Journal of Emergencies, Trauma, and Shock*. 3: 13 – 20.  D’Arcangelis G. (2017) “Reframing the ‘secularization of public health’: a critical race perspective on post-9/11 bioterrorism preparedness in the US.” *Critical Public Health*. 27(2): 275 – 284. |
| Mar 11 | **Ethics 2**  Hennigan WJ and Engel C. (2019) “Lost in the Pandemic.” *TIME Magazine*. 196(20-21): 52 – 61.  Levine H. (2020) “They Survived: Beating COVID-19 After 70.” AARP Magazine Online. |
| 10 | Mar 16 | **Previous Games 1**  Center for Nonproliferation Studies. (2004) “Manned Gaming and Simulation Relating to Terrorism and Weapons of Mass Destruction: A Review of the Literature.” Prepared for the Defense Threat Reduction Agency, Department of Defense.  Armstrong M. (2012) “Rehearsing for the Plague: Citizens, Security, and Simulation.” *Canadian Review of American Studies*. 42(1): 105 – 120.  Stone KW, Morehead BF, Karaye K, Davis CM, Horney JA. (2018) “Evaluating the Effectiveness of a Full-Scale Exercise of Epidemiologic Capacity for Bioterrorism Response.” *Journal of Homeland Security and Emergency Management*. DOI: 10.1515/jhsem-2017-0061. |
| Mar 18 | **Previous Games 2**  Johns Hopkins Center for Civilian Biodefense (2001) “Dark Winter: Bioterrorism Exercise.” Final Script. |
| 11 | Mar 23 | **Previous Games 3**  Johns Hopkins Center for Health Security (2018) “Clade X Exercise: Improving Policy to Prepare for Severe Pandemics.” Clade X Tabletop Exercise <https://www.centerforhealthsecurity.org/our-work/events/2018_clade_x_exercise/> |
| **Mar 25** | **BLUE BOOK EXAM** |
| 12 | Mar 30 | **START WARGAME** |
| **Apr 1** | **HOLIDAY** |
| 13 | Apr 6 | Continue Wargame for rest of semester. |
| Apr 8 |  |
| 14 | Apr 13 |  |
| Apr 15 |  |
| 15 | Apr 20 |  |
| Apr 22 | **Debriefing** |
| FINALS | Apr 29 | NO FINAL EXAM; Final papers (Attack Analysis) due NO LATER than NOON. |

1. Read the papers listed for each topic prior to coming to class. All papers are in D2L. [↑](#footnote-ref-1)