



IAFF 6186.DE

Emerging Threats

Summer 2022 Syllabus

Instructor: [Prof. Paul D Williams](#)

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Class Session: Tuesday, 5.10–6.40pm

Class Dates: 17 May to 16 August 2022

Virtual Office Hours: I will stay online 6.40-7.00pm for issues that can be discussed with other students present. Private meetings will be by appointment.

Credits: 3.0, CRN 21773

Course Description & Goals

This MA seminar course provides a survey of emerging risks and threats that are likely to have a significant impact on human security, the national security of many states, and global security dynamics. It is a required course for the "Science & Technology" concentration in the Security Policy Studies MA program. Hence, it pays special attention to a range of issues where science and technology play a major role. Topics covered include how to think about securitization, risk, and technological innovation; revolutions in military affairs; warfare in the "gray zone;" nuclear terrorism; warfare and cyberspace; advances in robotics and autonomous weapons systems; machine learning and Artificial Intelligence; as well as security challenges related to public health, biotechnology, demography, urbanization, the environment, outer space, and quantum technologies.

For each issue, we will analyze the politics of scientific and technological innovation by asking:

- What are the most relevant scientific and technological developments?
- Who benefits from these developments, and who loses out?
- What are the key drivers of change and who are the most salient actors involved?
- What risks and threats do these developments pose for security policies at the local, national, regional, and global levels?
- How should security policies be reformed in response to these developments?

A scientific and technical background is not required but will enhance understanding of some issues.

Learning Outcomes & Objectives

By the end of this course, students should be able to:

1. apply the concept of securitization and analyze contemporary security threats and risks;
2. think critically about how scientific and technological developments influence security policy;
3. think critically about a variety of perspectives and learn to discern good analysis;
4. develop their own positions and recommendations for improving security policies in several issue areas;
5. develop their research, analytical, written, and oral communication skills.

Course Workload/Credit Hour Policy

In a 14-week semester, including exam week, a three-credit graduate course would usually have around 100 minutes of direct/guided instruction, and about 350 minutes of independent work per week. You will spend approximately 2 hours

per week engaged in a combination of recorded video lectures and live synchronous sessions, and 1 hour per week participating in discussion exercises (for a total of 37.5 hours of guided instruction for the semester. Homework and other independent work (e.g., readings, course papers, etc.) is estimated at around 75 hours for the semester. In total you are expected to work for at least 112.5 hours over the semester.

Prerequisites

Academic

There are no academic prerequisites.

Technological

As an online student, it is necessary to possess baseline technology skills in order to participate fully in the course. Please consult the [GW Online website](#) for further information about recommended configurations and support. If you have questions or problems with technology for this course, please consult the Technology Help link in the left navigation menu in our course in Blackboard.

You should be able to:

- use a personal computer and its peripherals.
- use word processing and other productivity software.
- use the webcam and microphone on your device.
- use your computer to upload recordings and images to your computer.
- seek technology help by contacting [GW Information Technology](#) (202-994-4948).

Course Weekly Schedule

1. Introduction and Overview (Tuesday 17 May)
2. Securitization, Risk, and Technological Change (Tuesday 24 May)
3. Revolutions in Military Affairs and “Gray Zone” Conflict (Tuesday 31 May)
4. Nuclear Terrorism (Tuesday 7 June)
5. Cyberwar? (Tuesday 14 June)
6. Robotics and Autonomous Weapons Systems (Tuesday 21 June)
7. Artificial Intelligence and Future War (Tuesday 28 June)
8. Health Security (Tuesday 5 July)
9. Biotechnology and “Super Soldiers” (Tuesday 12 July)
10. Demography and Security (Tuesday 19 July)
11. Urbanization and Securing Cities (Tuesday 26 July)
12. Security in the Anthropocene (Tuesday 2 August)
13. Security and Outer Space (Tuesday 9 August)
14. Quantum Technologies and International Security (Tuesday 16 August)

Methods of Instruction

This course uses the following methods of instruction. Their overarching purpose is to provide opportunities for active learning and skills development, which will support you in achieving course learning objectives.

- **Lectures:** Lectures have been recorded for specific topics and are provided within each weekly module. You will view several videos for each class session which provide the background and perspectives needed to complete the course assignments and activities successfully. You are encouraged to pause the lecture/interview videos to read or review linked objects, which are intended to enhance learning on the topic. You may start and stop the videos and return to previous videos as often as you wish.
- **Readings:** Readings are assigned for each class session. As with the videos, readings have been carefully selected to provide you with the grounding needed to participate in course activities and successfully complete assignments. Read each document closely unless stated otherwise. All documents are posted on Blackboard (view or download) or linked to the internet within the modules.
- **Discussion:** Synchronous sessions will be held every week on Wednesdays, from 5.10-6.40pm, Eastern Time. This will be my primary opportunity to clarify lessons and answer your specific questions. Sessions will start promptly in Zoom, accessible through the Blackboard Course. If you cannot attend a session, you must notify me in advance via email.

Important: All live sync sessions will be recorded and posted to the Weekly Session in a timely manner.

Methods of Assessment

<i>Assignment Type</i>	<i>Length</i>	<i>Due Date</i>	<i>Total % of Final Grade</i>
Attendance and Participation	--	--	10%
Op-Ed/Position Paper	1,250-1,500 words	Due Session 7	25%
Policy Critique Memo	3 pages single-spaced	Due Session 10	25%
Research Paper	3,500-4,000 words	Due 08/19/22	40%

Total Percent: 100%

- **Attendance and Participation (10%):** This is a seminar, not a lecture course. Student contributions are thus essential. Students are required to attend all sessions, arrive on time, and have read at least the items listed under **Required Reading** prior to each session.
- **Op-Ed/Position Paper (25%) Due Session 7 Class:** Write an op-ed style/position paper on how to respond to a key threat/risk to human, national or global security, including an argument justifying the actions or policies you consider necessary. Choose an issue covered during Sessions 1-7 of the course. You cannot select the same topic for either of your other two written papers.

This paper should demonstrate your ability to sustain a logical, coherent, and persuasive argument. Your paper

should (i) identify a security threat or risk; (ii) explain why it is salient for human, national, regional and/or global security; and (iii) explain the actions or policies that should be taken in order to better mitigate that threat or risk. Your paper should be presented in a professional manner, written in clear and concise prose, and be correctly referenced.

Your paper should be double-spaced and 1,250-1,500 words in length, including all footnotes. Use standard (12-point) font and standard (1-inch) margins. Chicago Manual-style footnotes are preferred (reference the [Chicago Manual Style Citation Quick Guide](#) if needed). Please submit your paper in Microsoft Word format via Blackboard.

- **Policy Critique Memo (25%) Due Session 10 Class:** Write a policy memorandum critiquing a current policy problem related to the issues discussed in Sessions 2-9 of the course. It should be no more than three (3), 12-point typed, single-spaced, pages in length (approximately 1,500 words). If the memo exceeds three pages, the grade will be reduced. There is no need to include footnotes, references, or a bibliography.

This memo should demonstrate your ability to critique an existing policy and offer a better alternative. It should make a logical, coherent, and persuasive case for your preferred policy option.

Address your memo as follows:

To: The National Security Advisor or key official in an international organization of your choice

From: Your name and course code

Date: Submission date

Subject: Give your memo a succinct title that summarizes its main conclusions

Your memo must identify a current policy problem (not an imaginary or idealized problem). Explain why it is important (why should the decision-maker bother to read this memo?). Summarize what's wrong with current policy by identifying the shortcomings. Spell out some alternative options (present ideas about how to make policy better, responding directly to the shortcomings you identify). Aim for policy solutions that are "PAIR"—Practical, Actionable, Innovative, and Realistic. Analyze the pros and cons of those options (be dispassionate and analytical—every option has identifiable risks). Then recommend an option (why is this option better than the other options). Be sure to state how you respond to the "con" arguments of your chosen option and mitigate the risks you identify. Finally, explain how to implement your option, including assessing the requisite resources and addressing political risks (domestic or international) associated with your recommendation.

Please follow this format:

Executive Summary (up to ¼ page written after you finish)

1. Policy Problem
 - a. What is the problem with the current policy? It might be useful to think in terms of goals/methods/resources of the policy you're critiquing.
2. Why is it Important?
 - a. What differences does it make (to security/political/economic/humanitarian interests)?
3. Shortcomings of current policy (sections 1-3 together = ½ page)
 - a. Why do we need a change in policy?
4. Options (1 ½ pages)
 - a. Option A
 - i. Pros

- ii. Cons
 - b. Option B
 - i. Pros
 - ii. Cons
 - c. Option C
 - i. Pros
 - ii. Cons
- 5. Recommendations (up to ½ page)
 - a. Advocacy
 - b. Response to Counterarguments
- 6. Implementation (up to ½ page)
 - a. Politics
 - i. Domestic
 - ii. International
 - b. Money / Resources

Please submit an electronic version of the memo in Microsoft Word format via Blackboard.

- **Research Paper (40%) Due 5pm (EST) Friday, August 19, 2022:** Develop a research question that analyzes an emerging security issue. You must submit your proposed research question to me in writing, and I must approve it in advance of submission. This paper should demonstrate your ability to conduct independent, MA-level research on an emerging security threat or risk.

Your research paper should: (i) formulate a clear and well-scoped research question; (ii) demonstrate that you have read and understood relevant scholarly or policy literature; (iii) advance and sustain a logical, coherent, and persuasive answer to your research question; and (iv) be professionally presented, written in clear and concise prose, and be correctly referenced.

Your paper should be double-spaced and 3,500-4,000 words in length, excluding footnotes. If the paper is not within this word range, the grade will be reduced. Use standard (12-point) font and standard (1-inch) margins. Chicago Manual-style footnotes are preferred (reference the [Chicago Manual Style Citation Quick Guide](#) if needed). Please submit your paper in Microsoft Word format via Blackboard.

Grading Scale, Late Submission of Papers, and Incompletes

Interpreting Grades

A	(94-100)	Excellent, substantive command of material and well-written.
A-	(90-93)	Excellent, with minor substantive or writing issues.
B+	(87-89)	Very Good, with limited substantive or writing issues.
B	(84-86)	Good, with some substantive or writing issues.
B-	(80-83)	Fair, with numerous substantive or writing issues.
C+	(77-79)	Satisfactory but poor command of substance or writing issues.
C	(74-76)	Poor, with numerous substantive or writing issues.

C-	(70-73)	Very poor, with numerous substantive or writing issues.
F		Failure, with profound substantive or writing issues.

Late Papers

Late papers will be penalized one-third of the grade per working day (from A to A-, from A- to B+, etc.). Save and print your work regularly as you write. Problems with technology are not an acceptable reason for late work.

Incomplete Grades

At the option of the instructor, an Incomplete may be given for a course if a student, for reasons beyond the student's control, is unable to complete the work of the course, and if the instructor is informed of, and approves, such reasons before the date when grades must be reported. An Incomplete can only be granted if the student's prior performance and class attendance in the course have been satisfactory. Any failure to complete the work of a course that is not satisfactorily explained to the instructor before the date when grades must be turned in will be graded F, Failure.

If acceptable reasons are later presented to the instructor, the instructor may initiate a grade change to the symbol I, Incomplete. The work must be completed within the designated time period agreed upon by the instructor, student, and school, but no more than one calendar year from the end of the semester in which the course was taken. To record the exact expectations, conditions, and deadlines of the Incomplete please use the [Elliott School's Incomplete Grade Contract](#).

The completed and signed contract is to be submitted to the Academic Affairs and Student Services Office. All students who receive an Incomplete must maintain active student status during the subsequent semester(s) in which the work of the course is being completed. If not registered in other classes during this period, the student must register for continuous enrollment status. For more information regarding Incompletes please review the relevant sections in the [University Bulletin](#).

Course Materials & Requirements

In addition to the weekly Required Readings below, the longer list of Recommended Readings is a good place to start when writing your papers. You should also follow contemporary events by sifting the quality international press e.g., *Washington Post*, *New York Times*, *Financial Times*, *The Economist* etc.

Although it's not required for the course, I'd also recommend the National Geographic series, "Year Million" (2017). It's thought provoking, good fun, and discusses lots of issues that we will be discussing in class. Season 1 is six episodes of about 50 mins each. It costs \$14.99 on [iTunes](#) or [Amazon](#).

Finally, useful websites that regularly feature relevant articles for this course include:

- [Defense One](#)
- [War on the Rocks](#)
- [Center for a New American Security](#)
- [Center for Security and Emerging Technology, Georgetown University](#)

Course Calendar & Readings

Session 1 (17 May): Introduction and Overview

Guiding Questions:

- What are the most important emerging global trends?
- What are the security implications of these trends?
- How will (local and global) politics affect scientific and technological innovations?
- How should we prioritize between human, national, and global security?

Required Readings:

- *Global Trends 2040: A More Contested World* (US NIC, March 2021), pp.1-13
- *Long-Range Emerging Threats Facing the United States As Identified by Federal Agencies* (US GAO, Dec. 2018), [pp.1-11](#)

Session 2 (24 May): Securitization, Risk, and Technological Change

Guiding Questions:

- What does it mean to “securitize” an issue?
- Should HIV/AIDS be securitized?
- What does the diversification of political risk mean for security?
- How should we understand technology’s relationship to world politics in general and warfare in particular?
- Do you agree with Cronin’s “lethal empowerment theory” of technology?

Required Readings:

- Nyman, J., “Securitization” in P.D. Williams & M. McDonald (eds.), [Security Studies: An Introduction](#) (Routledge, 3rd edn, 2018), pp.100-113.
- Elbe, S., “[Should HIV/AIDS be securitized? The ethical dilemmas of linking HIV/AIDS and security](#),” *International Studies Quarterly*, 50:1 (2006), pp. 119-144. [Skim this article.]
- Rice, C. & A. Zegart, “[Managing 21st Century Political Risk](#),” *Harvard Business Review*, May-June 2018, pp. 130-38.
- Drezner, D., “[Technological change and international relations](#),” *International Relations*, 33:2 (2019), pp. 286-303.
- Cronin, A.K., [Power to the People: How open technological innovation is arming tomorrow’s terrorists](#) (Oxford University Press, 2020), Introduction (pp.1-15)

Recommended Readings:

On Securitization

- McDonald, M.J., “[Securitization and the Construction of Security](#),” *European Journal of International Relations*, 14:4 (2008): 563-587.
- Buzan, B. et al, [Security: A New Framework for Analysis](#) (Lynne Rienner, 1998).
- Williams, M.C., “[Words, Images, Enemies: Securitization and International Politics](#),” *International Studies Quarterly*, 47:4 (2003): 511-31.
- Hansen, L., “[The Little Mermaid’s Silent Security Dilemma and the Absence of Gender in the Copenhagen School](#),” *Millennium: Journal of International Studies*, 29:2 (2000): 285-306.
- Haacke, J. & P.D. Williams, “[Regional Arrangements, Securitization, and Transnational Security Challenges: The African Union and the Association of Southeast Asian Nations Compared](#),” *Security Studies*, 17:4 (2008): 775-809.

On Risk

- Petersen, K.L., “[Risk analysis – A field within security studies?](#)” *European Journal of International Relations*, 18:4 (2011): 693-717.
- Bremmer, I. and P. Keat, [The Fat Tail: The Power of Political Knowledge in an uncertain world](#) (Oxford University Press, 2010), chs 1 and 2.
- Jarvis, D.S.L. and M. Griffiths, “[Learning to Fly: The Evolution of Political Risk Analysis](#),” *Global Society*, 21:1 (2007): 5-21.
- “[What is political risk?](#)” *The Economist*, 8 June 2017,
- Beck, U., [Risk Society](#) (Sage 1986), ch.1.
- Jasanoff, S., “[The Songlines of Risk](#),” *Environmental Values*, 8:2 (1999): 135-152.

On Technology and Warfare

- E.A. Cohen, “Technology and Warfare” in J. Baylis et al (eds.), [Strategy in the Contemporary World](#) (Oxford University Press, 5th edn, 2016), pp.121-136.
- S. Biddle, [Military Power](#) (Princeton University Press, 2004), chapter 4.

- M. O'Hanlon, [The Science of War](#) (Princeton University Press, 2009), chapter 4.
- Horowitz, M.C., [The Diffusion of Military Power](#) (Princeton University Press, 2010).
- D.R. McCarthy (ed.), [Technology and World Politics](#) (Routledge, 2017).
- Ellman, J. et al, [Assessing the Third Offset Strategy](#) (CSIS, June 2017).

Session 3 (31 May): Revolutions in Military Affairs and “Gray Zone” Conflict

Guiding Questions:

- What counts as a Revolution in Military Affairs?
- What new technologies will likely have the most salient impact on global security?
- What are the principal characteristics of warfare in the “gray zone”?
- How might “gray zone” activities be effectively countered?

Required Readings:

- Freedman, L., [Strategy: A History](#) (Oxford University Press, 2016), chapter 16 “The Revolution in Military Affairs,” pp.214-36.
- Singer, P.W., [Wired for War: The Robotics Revolution and Conflict in the 21st Century](#) (Penguin, 2009), chapter 10 pp.179-204.
- Brose, C., [“The New Revolution in Military Affairs: War’s Sci-Fi Future,”](#) *Foreign Affairs*, 98:4 (2019): 122-33.
- Hughes, G., [“War in the Grey Zone: Historical reflections and contemporary implications,”](#) *Survival*, 62:3 (2020): 131-58.

Recommended Readings:

On RMAs

- Schaubelt, C.M., [“Whither the RMA?”](#) *Parameters*, (Autumn 2007): 95-107,
- Echevarria, A.J., [“The Revolution in Military Affairs and the Continued Relevance of Clausewitz,”](#) *Joint Forces Quarterly*, (Winter 1995-96):
- Cohen, E., [“Change and Transformation in Military Affairs,”](#) *Journal of Strategic Studies*, 27:3 (2004): 395-407.
- Cohen, E., [“A Revolution in Warfare,”](#) *Foreign Affairs*, 75:2 (1996): 37-54.

On Gray Zone Warfare

- Morris, L.J. et al, [Gaining Competitive Advantage in the Gray Zone](#) (RAND, 2019),
- Kapusta, P., [The Gray Zone](#), Oct.-Dec. 2015.
- Barno, D. & N. Bensahel, [“Fighting and Winning in the Gray Zone,”](#) *War on the Rocks*, 19 May 2015.

Session 4 (7 June): Nuclear Terrorism

Guiding Questions:

- Why has there been no mega-terrorist attack on the United States since 9/11?
- Has the risk of nuclear terrorism increased or decreased since 9/11?
- Are non-state actors more likely to buy, steal or build a nuclear weapon?
- Should states be encouraged or explicitly threatened to ensure that they safeguard nuclear materials?

Required Readings:

- Allison, G., [“Nuclear Terrorism: Did we beat the odds or change them?”](#) *Prism*, 7:3 (2018): 3-21.
- Lieber, K.A. & D.G. Press, [“Why States Won’t Give Nuclear Weapons to Terrorists,”](#) *International Security*, 38:1 (2013): 80-104.
- McIntosh, C. & I. Storey, [“Between Acquisition and Use: Assessing the Likelihood of Nuclear Terrorism,”](#) *International Studies Quarterly*, 62:2 (2018): 289-300.
- Litwak, R.S., [“Recalibrating Deterrence to Prevent Nuclear Terrorism,”](#) *Washington Quarterly*, 40:1 (2017): 55-70.

Recommended Readings:

- [The Treaty on the Non-Proliferation of Nuclear Weapons and associated texts.](#)
- [Nuclear Posture Review 2018](#) (US Department of Defense, 2018), pp.65-68.
- Eaves, E., [“What Does Nuclear Terrorism Really Mean?,”](#) *Bulletin of the Atomic Scientists*, April 7, 2016.
- Bunn, M., et al, [Preventing Nuclear Terrorism](#) (Harvard University, Belfer Center report, March 2016).
- Downes, R.J. and C. Hobbs, [“Nuclear terrorism and virtual risk: Implications for prediction and the utility of models,”](#) *European Journal of International Security*, 2:2 (2017): 203-22.
- Weiss, L., [“On fear and nuclear terrorism,”](#) *Bulletin of the Atomic Scientists*, 71:2 (2015): 75-87.
- Allison, G.T., [Nuclear Terrorism: The Ultimate Preventable Catastrophe](#) (Macmillan, 2004).
- Allison, G., [“A Response to Nuclear Terrorism Skeptics,”](#) *The Brown Journal of World Affairs*, 16:1 (2009): 31-44,

- Mowatt-Larssen, R., '[The Armageddon test: Preventing nuclear terrorism](#)', *Bulletin of the Atomic Scientists*, 65 (2009): 60–70.
- Volders, B. and T. Sauer (eds), [Nuclear Terrorism: Countering the Threat](#) (Routledge, 2016).
- Black-Branch, J., "[Nuclear Terrorism by States and Non-state Actors: Global Responses to Threats to Military and Human Security in International Law](#)," *Journal of Conflict & Security Law*, 22:2 (2017): 201-48.
- Litwak, R.S., [Deterring Nuclear Terrorism](#) (Wilson Center, Oct. 2016).
- Rezaei, F., "[Shopping for Armageddon: Islamist Groups and Nuclear Terror](#)," (2017).
- Bunn, M., "[ISIS Seizes Nuclear Material, but That's Not the Reason to Worry](#)," *The National Interest* (July 11, 2014).
- Kroenig, M., [Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons](#) (Cornell University Press, 2010).

Session 5 (14 June): Cyberwar?

Guiding Questions:

- What are the key characteristics of cyberspace and their security implications?
- What are the principal implications that cyberspace raises for war and security?
- Is cyberwar a useful concept?
- How should we think about deterrence and coercion in cyberspace?
- How relevant is social media to understanding 21st century warfare?

Required Readings:

- Rid, T., "[Cyber War Will Not Take Place](#)", *Journal of Strategic Studies*, 35:1 (2012): 5-32.
- Nye, J.S., "[Deterrence and Dissuasion in Cyberspace](#)," *International Security*, 41:3 (2016/17): 44-71.
- Rovner, J., "[Warfighting in Cyberspace](#)," *War on the Rocks*, 17 March 2021.
- Singer, P.W. & E.T. Brooking, *LikeWar: The Weaponization of Social Media* (Houghton Mifflin Harcourt, 2018), chapters 1 and 4 (pp.1-23 and 83-117).

Recommended Readings:

Databases

- [Cyber Operations Tracker](#) by the Council on Foreign Relations:
- [Significant Cyber Incidents Since 2006](#), CSIS.

General Readings

- Segal, A., [The Hacked World Order](#) (Public Affairs, 2017), chapter 2, "The Anatomy of Cyberpower," pp.31-56.
- Singer, P.W. & A. Friedman, [Cybersecurity and Cyberwar: What Everyone Needs to Know](#) (Oxford University Press, 2014).
- Arquilla, J. & D. Ronfeldt, "The Advent of Netwar (Revisited)," in J. Arquilla and D. Ronfeldt (eds.), [Networks and Netwars: The Future of Terror, Crime, and Militancy](#) (RAND, 2001), pp.1-25.
- Clark, D., et al, [At the Nexus of Cybersecurity and Public Policy](#) (The National Academies Press, 2014), chapters 1 and 3.
- Zimet, E. & E. Skoudis, "[A Graphical Introduction to the Structural Elements of Cyberspace](#)," in F.D. Kramer et al (eds.), *Cyberpower and National Security* (CTNSP, 2009).

On Cyber War

- Rid, T., [Cyber War Will Not Take Place](#) (Oxford University Press, 2013), chapters 1-3.
- Arquilla, J., "[Cyber War Is Already Upon Us](#)," *Foreign Policy*, March/April 2012.
- Kostyuk, N. & Y.M. Zhukov, "[Invisible Digital Front: Can Cyber Attacks Shape Battlefield Events?](#)" *Journal of Conflict Resolution*, 63:2 (2019): 317-47.
- Gartzke, E., "[The Myth of Cyberwar: Bringing War in Cyberspace Back Down to Earth](#)," *International Security*, 38:2 (2013): 41-73.
- Singer, P.W. & A. Friedman, [Cybersecurity and Cyberwar](#) (Oxford University Press, 2014), pp.120-165.
- Slayton, R., "[What is the cyber offense-defense balance? Conceptions, causes and assessment](#)," *International Security*, 41:3 (2016/17): 72-109.

Session 6 (21 June): Robotics and Autonomous Weapons Systems

Guiding Questions:

- Robots "sense-process-act"—how will advances in robotics effect international security?
- How should we think about "autonomy" in relation to weapons systems?
- What limitations, if any, should be placed on Lethal Autonomous Weapon Systems (LAWS)?
- How are drones/UAVs being used in contemporary warfare? How is this likely to change over time?

Required Readings:

- Scharre, P., *Army of None: Autonomous Weapons and the Future of War* (W.W. Norton, 2018), chapters 1-3 (pp.11-56).
- Cronin, A.K., [Power to the People: How open technological innovation is arming tomorrow's terrorists](#) (Oxford UP, 2020), chapter 9 (pp.231-55).
- Horowitz, M., "[Do Emerging Military Technologies Matter for International Politics?](#)" *Annual Review of Political Science*, 23 (2020): 385-400.
- Ressler, D., [The Islamic State and Drones](#) (West Point CTC, July 2018).

Recommended Readings:

Drones/UAVs

- Horowitz, M.C., et al, "[Separating Fact from Fiction in the Debate over Drone Proliferation](#)," *International Security*, 41:2 (2016): 7-42.
- Zegart, A., "[Cheap fights, credible threats: The future of armed drones and coercion](#)," *Journal of Strategic Studies*, 43:1 (2020): 6-46.
- Boyle, M.J. et al, "[Debating Drone Proliferation](#)," *International Security*, 42:3 (2017/18): 178-82.
- Barrie, D. et al, [Armed uninhabited aerial vehicles and the challenges of autonomy](#) (IISS, Dec. 2021).
- Mayer, M., "[The new killer drones: understanding the strategic implications of next-generation unmanned combat aerial vehicles](#)," *International Affairs*, 91:4 (2015): 765-80.
- Shah, A., "[Do U.S. Drone Strikes Cause Blowback? Evidence from Pakistan and Beyond](#)," *International Security*, 42:4 (2018): 47-84.
- Ressler, D., [Remotely Piloted Innovation: Terrorism, Drones and Supportive Technology](#) (West Point: Combating Terrorism Center, Oct. 2016).
- [Dispelling Myths About Armed Drones project](#), RAND Corporation.

Autonomous Weapons Systems

- Scharre, P. & M.C. Horowitz, [An Introduction to Autonomy in Weapons Systems](#) (CNAS Working Paper, Feb. 2015).
- Future of Life Institute: "[Autonomous Weapons: An Open Letter from AI & Robotics Researchers](#)."
- Work, R.O., [Principles for the Combat Employment of Weapons Systems with Autonomous Functionalities](#) (CNAS, April 28, 2021).
- Boulanin, V. & M. Verbruggen, [Mapping the Development of Autonomy in Weapons Systems](#) (SIPRI, Nov. 2017), esp. Executive Summary, pp.vii-ix.

Session 7 (28 June): Artificial Intelligence and Future War

Guiding Questions:

- What is intelligence? Do machines possess it?
- What roles are machine learning and A.I. playing in contemporary security dynamics?
- What are the main security implications of A.I. in the military, information, and economic realms?
- What are the main characteristics of computational propaganda and "deepfakes"? And what should humans do about them?

Required Readings:

- Horowitz, M.C., "[Artificial Intelligence, International Competition, and the Balance of Power](#)," *Texas National Security Review*, 1:3 (2018): 36-57.
- Scharre, P., "[Killer Apps: The Real Dangers of an AI Arms Race](#)," *Foreign Affairs*, 98:4 (2019): 135-44.
- Chessen, M., [The MADCOM Future: How AI will enhance computational propaganda, reprogram human culture, and threaten democracy ... and what can be done about it](#) (Atlantic Council, Sept. 2017).
- Hwang, T., [Deepfakes: A Grounded Threat Assessment](#) (Georgetown University CSET, July 2020).

Recommended Readings:

AI and International Security

- Hoadley, D.S. & N.J. Lucas, [Artificial Intelligence and National Security](#) (CRS Report, April 2018).
- Allen, G. & T. Chan, [Artificial Intelligence and National Security](#) (Harvard University Belfer Center Paper, 2017), pp.1-41.
- [The National Commission on Artificial Intelligence](#) (2021).
- Lee, K-F., [A.I. Super-Powers: China, Silicon Valley and the New World Order](#) (Houghton Mifflin Harcourt, 2018).
- Fedasiuk, R., [Chinese Perspectives on AI and Future Military Capabilities](#) (Georgetown University CSET, Aug. 2020).
- Boulanin, V. (ed.), [The Impact of Artificial Intelligence on Strategic Stability and Nuclear Risk](#) (SIPRI, May 2019).
- Feldstein, S., [The Global Expansion of AI Surveillance](#) (Carnegie Endowment, Sept. 2019).

Computational Propaganda and "Deepfakes"

- Hulcoop, A. & J. Scott-Railton, et al., "[Tainted Leaks: Disinformation and Phishing with a Russian Nexus](#)," (The Citizen Lab: University of Toronto Munk School of Global Affairs, June 20, 2017), pp.1-29.
- Sanovich, S., "[Computational Propaganda in Russia: The Origins of Digital Misinformation](#)" (University of Oxford: Computational Propaganda Research Project, Mar. 2017), pp.2-16.
- Davis, R. et al, [Deepfakes](#) (Harvard University, Tech Factsheets for Policymakers, Spring 2020).
- Chesney, R. & D. Citron, "[Deepfakes and the New Disinformation War](#)," *Foreign Affairs*, 98:1 (2019): 147-55.

Session 8 (5 July): Health Security

Guiding Questions:

- How should we think about the relationship between pandemics, public health, and security?
- Is "global health security" a viable concept in contemporary world politics?
- What global governance structures are necessary to effectively contain pandemics?
- What are the main implications of treating the pharmaceutical industry as a national security asset?

Required Readings:

- Harrison, M., "Pandemics" in M. Jackson (ed.), *The Routledge History of Disease* (Routledge, 2016), pp.129-146.
- Davies, S.E., "[Securitizing Infectious Diseases](#)," *International Affairs*, 84:2 (2008): 295-313.
- Rushton S., "[Global Health Security: Security for Whom? Security from What?](#)" *Political Studies*, 59:4 (2011): 779-796.
- Moon et al, "[Will Ebola change the game? Ten essential reforms before the next pandemic](#). The report of the Harvard-LSHTM Independent Panel on the Global Response to Ebola," *Lancet*, 386 (2015): 2204-21. **[Skim this article.]**

Recommended Readings:

- McInnes, C. and K. Lee, [Global Health and International Relations](#) (Polity Press, 2012), chapter 6, pp.130-57.
- Youde, J., "[High Politics, Low Politics, and Global Health](#)," *Journal of Global Security Studies*, 1:2 (2016): 157-70.
- Elbe, S., [Security and Global Health](#) (Polity Press, 2010), especially chs 1-3.
- Elbe, S., "[Should HIV/AIDS be securitized? The ethical dilemmas of linking HIV/AIDS and security](#)," *International Studies Quarterly*, 50:1 (2006): 119-144.
- Elbe et al, "[Medical countermeasures for national security: a new government role in the pharmaceuticalization of society](#)," *Social Science & Medicine*, 131 (2015): 263- 271.
- Harman, S. & C. Wenham, "[Governing Ebola: between global health and medical humanitarianism](#)," *Globalizations*, 15:3 (2018): 362-376.
- Davies, S.E. & B. Bennett, "[A gendered human rights analysis of Ebola and Zika](#)," *International Affairs*, 92:5 (2016): 1041-60.

Session 9 (12 July): Biotechnology and "Super Soldiers"

Guiding Questions:

- Who benefits most from the ongoing revolution in biotechnology?
- How is biotechnology changing the contemporary security terrain?
- What are the principal security implications of developments in synthetic biology?
- What are the major ethical and policy issues involved in "human enhancement," especially "enhancement" of soldiers?

Required Readings:

- Malet, D., "[Captain America in International Relations: The Biotech Revolution in Military Affairs](#)," *Defence Studies*, 15:4 (2015): 320-40.
- Gronvall, G., "[The security implications of synthetic biology](#)," *Survival*, 60:4 (2018): 165- 80.
- NAP, [Biodefense in the Age of Synthetic Biology](#) (NAP, 2018), Summary + chapters 2 & 3 (pp.1-7 & 15-35).
- Lin, P. et al, [Enhanced Warfighters: Risk, Ethics, and Policy](#) (The Greenwall Foundation, 2013), pp.1-27.
- Scharre, P. et al, [Super Soldiers: Summary of Findings and Recommendations](#) (CNAS, 28 November 2018).

Recommended Readings:

- Malet, D., "[The Pursuit and Use of Biological Weapons by States](#)" in *Oxford Research Encyclopedia of International Studies*, March 2021, <https://doi.org/10.1093/acrefore/9780190846626.013.604>
- Malet, D. [Biotechnology and International Security](#) (Rowman & Littlefield, 2016).
- Enemark, C., [Biosecurity Dilemmas](#) (Georgetown University Press, 2017), chapter 1 "Biodefense and the Security Dilemma," and chapter 7 "The Agenda of Global Health Security."
- Dieuliis, D., "[Biotechnology for the Battlefield](#)," *War On The Rocks*, 27 November 2018.

- Wickiser, J.K. et al, "[Engineered pathogens and unnatural biological weapons: The future threat of synthetic biology](#)," *CTC Sentinel*, 13:8 (2020): 1–6.
- Kania, E.B., "[Minds at War: China's Pursuit of Military Advantage through Cognitive Science and Biotechnology](#)," *PRISM*, 8:3 (2019): 83-101.
- Guo, Ji-Wei, "[The Command of Biotechnology and Merciful Conquest in Military Opposition](#)," *Military Medicine*, 171:11 (2006): 1150-1154.

On "Super Soldiers"

- CNAS, "[Super Soldiers](#)" series of publications.
- Scharre, P. & L. Fish, [A Strategy for Enhancing Warfighter Survivability](#) (CNAS, April 2018).
- Ford, K. & C. Glymour, "[The enhanced warfighter](#)," *Bulletin of the Atomic Scientists*, 70:1 (2014): 43-53.
- Fazal, T.M., "[Dead Wrong? Battle deaths, military medicine, and exaggerated reports of war's demise](#)," *International Security*, 39:1 (2014): 95-125.
- Ryan, M. & T. Keane, "[Biotechnology and human augmentation: Issues for national security practitioners](#)," *Strategy Bridge*, 5 February 2019.

Session 10 (19 July): Demography and Security

Guiding Questions:

- How would you characterize global demographic trends?
- Is a world with 10 billion humans a security risk?
- Are certain population structures at higher risk of armed conflict?
- How do population dynamics affect national security and global security?
- How persuasive is the "geriatric peace" thesis?

Required Readings:

- Sciubba, J.D., *The Future Faces of War: Population and National Security* (Praeger, 2010), chapter 1 "A Framework for Demography and National Security," pp.1-16.
- Goldstone, J. et al, "[Demographic Growth in Dangerous Places: Concentrating Conflict Risk](#)," *International Area Studies Review* 17:2 (2014): 120-133.
- Haas, M., "[A Geriatric Peace? The Future of U.S. Power in a World of Aging Populations](#)," *International Security*, 32:1 (2007): 112-147.
- Brooks, D.J. et al, "[The Demographic Transition Theory of War: Why Young Societies Are Conflict Prone and Old Societies Are the Most Peaceful](#)," *International Security*, 43:3 (2018/19): 53-95.

Recommended Readings:

- Goldstone, J., H. Root & M.G. Marshall, "The Impact of Global Demographic Changes on the International Security Environment" in C. Crocker et al (eds.), [Managing Conflict in a World Adrift](#) (US Institute of Peace Press, 2015), pp. 241-254.
- Sciubba, J.D., "[Demography and Instability in the Developing World](#)," *Orbis*, 56:2 (2012): 267-77.
- Goldstone, J.A., "[The New Population Bomb: The Four Megatrends that will Change the World](#)," *Foreign Affairs*, 89:1 (2010): 31-43.
- Goldstone, J.A., "Demography: A Security Perspective" and R. Cincotta, "Demography: A Development Perspective" in J. Spear & P.D. Williams (eds.), [Security and Development in Global Politics](#) (Georgetown University Press, 2012), pp.271-290 & 291-310.
- Goldstone, J.A. et al (eds.), [Political Demography: How Population Changes Are Reshaping International Security and National Politics](#) (Oxford University Press, 2011), Introduction and Conclusion.
- Toft, M.D., "[Demography and national security: The politics of population shifts in contemporary Israel](#)," *International Area Studies Review*, 15:1 (2012): 21-42.
- Sommers, M., [The Outcast Majority: War, development, and youth in Africa](#) (University of Georgia Press, 2015), chapter 1, "Demography and Alienation."
- Urdal, H., "[A Clash of Generations? Youth Bulges and Political Violence](#)," *International Studies Quarterly*, 50:3 (2006): 607-29.

Session 11 (26 July) Urbanization and Securing Cities

Guiding Questions:

- How would you characterize the relationship between urbanization and violent conflict?
- How best can we understand the science and ecology of cities and their security implications?
- What are the main factors that influence the shape of urban warfare in the 21st century?

- How did ISIS use urban environments to its advantage when fighting superior forces?
- Why is intelligence gathering so important for urban operations?

Required Readings:

- Buhaug, H. & H. Urdal, "[An urbanization bomb? Population growth and social disorder in cities](#)," *Global Environmental Change*, 23:1 (2013): 1-10. [Skim main conclusions.]
- King, A. *Urban Warfare in the Twenty-First Century* (Polity Press, 2021), chapter 1 (pp.1-18).
- Evans, M., "[Future war in cities: Urbanization's challenge to strategic studies in the 21st century](#)," *International Review of the Red Cross*, 98:1 (2016): 37–51.
- Spencer, J., "[The Destructive Age of Urban Warfare](#)," *Modern War Institute*, 28 March 2019.
- Postings, R., "[A guide to the Islamic State's way of urban warfare](#)," 9 July 2018.

Recommended Readings:

- Fragile Cities – [UN University research outputs](#)
- Betz, D. & H. Stanford-Tuck, "[The City is Neutral: On Urban Warfare in the 21st Century](#)," *Texas National Security Review*, 2:4 (2019): 60-87.
- Spencer, J., "[The City is Not Neutral: Why Urban Warfare is so Hard](#)," *Modern Warfare Institute*, 4 March 2020.
- Kilcullen, D. & G. Pendleton, [Future Urban Conflict, Technology, and the Protection of Civilians](#) (Stimson Center, June 2021).
- [Small Arms Survey 2015: Weapons and the World](#) (Cambridge University Press, 2015), chapter 2 "Violence and Frontier Urbanization".
- Kilcullen, D., [Out of the Mountains: The Coming Age of the Urban Guerrilla](#) (Oxford University Press, 2013).
- "[Preparing for more urban warfare: Much of the fighting in future wars is likely to take place in cities](#)," *The Economist*, 25 January 2018.
- Muggah, R., "[The Tricky Business of Counting the Costs of Armed Conflicts in Cities](#)," *Small Wars Journal* (23 May 2018).

On the U.S. Military and Urban Warfare

- Gentile, G. et al, [Reimagining the Character of Urban Operations for the US Army](#) (RAND Corporation, 2017).
- Harris, Col. M. et al., [Megacities and the United States Army: Preparing for a Complex and Uncertain Future](#) (Chief of Staff of the Army's Strategic Studies Group, June 2014).
- Robertson, W.G. & L.A. Yates (eds.), *Block By Block: The Challenges of Urban Operations* (Fort Leavenworth: Combat Studies Institute, 2003), Introduction and Conclusion. [[Full book PDF available](#)]
- Castilla, S.M., "[On the Likelihood of Large Urban Conflict in the 21st Century](#)," *Small Wars Journal*, March 2017.
- [U.S. Army, Primer on Urban Operations](#), selection of articles
- [Urban Warfare – RAND Corporation](#)
- South, T., "[The subterranean battlefield](#)," *Military Times*, 26 February 2019.

Session 12 (2 August): Security in the Anthropocene

Guiding Questions:

- How does the concept of the Anthropocene change traditional understandings of the environment, security, geopolitics and geoeconomics?
- Is "industrial humanity" the Earth's biggest security threat?
- What are the benefits and costs of geo-engineering as a response to climate change? Is there a "security hazard" to geo-engineering?
- Are there other ways technology can help manage security threats in the Anthropocene?

Required Readings:

- "Briefing: Climate Change," *The Economist*, 21 September 2019, pp.22-25.
- Dalby, S., "Environmental Change" in P.D. Williams & M. McDonald (eds.), [Security Studies: An Introduction](#) (Routledge, 3rd edn, 2018), pp. 526-540.
- Dalby, S., "Anthropocene Formations: Environmental Security, Geopolitics and Disaster," *Theory, Culture & Society*, 34:2-3 (2017): 233-252.
- Steffen, W. et al, "[The Anthropocene: From Global Change to Planetary Stewardship](#)," *Ambio: A Journal of the Human Environment*, 40:7 (2011): 739-761.
- IPBES, [Global Assessment on Biodiversity & Ecosystem Services: Summary for Policymakers](#) (May 2019), pp.10-19. [Skim the rest]
- Corry, O., "[The international politics of geoengineering: The feasibility of Plan B for tackling climate change](#)," *Security Dialogue*, 48:4 (2017): 297-315.

Recommended Readings:

- Brauch, H.G. and J. Scheffran, "[Introduction: Climate Change, Human Security, and Violent Conflict in the Anthropocene](#)," in J. Scheffran et al (eds.), *Climate Change, Human Security and Violent Conflict* (Springer 2012), pp.3-40.
- Chalecki, E.L., [Environmental Security: A Guide to the Issues](#) (Praeger 2013), Chapter 1: Historical and Current Overview of the Issue and Appendix 1.
- Barnett, J., "Security from What and for Whom?" in [The Meaning of Environmental Security](#) (Zed Books, 2001), pp.23-32.
- Dalby, S., "[Rethinking Geopolitics: Climate Security in the Anthropocene](#)," *Global Policy*, 5:1 (2014): 1-9.
- McNeill, J.R., [Something New Under the Sun: An environmental history of the 20th century world](#) (W.W. Norton, 2000).
- [Intelligence Community Assessment: Global Water Security](#), February 2, 2012.
- [National Intelligence Council: Implications for National Security of Anticipated Climate Change](#), 21 September 2016.
- Harrington, C. & C. Shearing, [Security in the Anthropocene: Reflections on Safety and Care](#) (Verlag, Biefeld, 2017).
- Nightingale, P. & R. Cairns, [The Security Implications of Geoengineering: Blame, Imposed Agreement and the Security of Critical Infrastructure](#) (Climate Geoengineering Governance Working Paper Series: 018, 2015).

Session 13 (9 August): Security and Outer Space

Guiding Questions:

- Which activities in outer space are security issues?
- How significant a threat is the militarization and/or weaponization of space?
- Are you a "space warrior" or "space worrier" when it comes to the likelihood of war in space?
- What are the two most important factors that will shape the future of security issues in outer space?

Required Readings:

- Vedda, J.A. and P.L. Hays, [Major Policy Issues in Evolving Global Space Operations](#) (Aerospace Corporation Center for Space Policy and Strategy and Mitchell Institute for Aerospace Studies, Feb. 2018) [**Skim all of the issues discussed.**]
- Harrison, T. et al, [Space Threat Assessment 2021](#) (CSIS Aerospace Security Project, March 2021), pp.1-7 and 28-29.
- NASIC, [Competing in Space](#) (December 2018).
- Colby, E., [From Sanctuary to Battlefield: A Framework for a U.S. Defense and Deterrence Strategy for Space](#), (CNAS, January 2016).

Recommended Readings:

General

- [Space Security Index](#) [Executive Summaries are free]
- [The Space Review](#) weekly online journal with short articles, commentaries and reviews.
- Brachet, G., [The Security of Space Activities](#) (SIPRI Non-proliferation paper 51, July 2016).
- Davenport, C., [The Space Barons](#) (Public Affairs, 2018).

On Warfare in Space

- Bowen, B.E., [War in Space](#) (Edinburgh University Press, 2020), Introduction.
- Pasco, X., "Space: A New Theatre of War?" in J. Lindley-French and Y. Boyer (eds.), [The Oxford Handbook of War](#) (Oxford University Press, 2012), pp.489-502.
- Johnson-Freese, J., [Space Warfare in the 21st Century](#) (Routledge, 2016).
- Dawson, L., [War in Space](#) (Springer, 2019).
- Moltz, J.C., [The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests](#) (Stanford University Press, 2nd edn., 2011).
- Moltz, J.C., [Crowded Orbits: Conflict and Cooperation in Space](#) (Columbia University Press, 2014).

On Arms Control in Space

- Arbatov, A. & V. Dvorkin (eds.), [Outer Space: Weapons, Diplomacy, and Security](#) (Carnegie Endowment, 2010).
- Peoples, C., "[The Securitization of Outer Space: Challenges for Arms Control](#)," *Contemporary Security Policy*, 32:1 (2011): 76-98.
- Larsen, P.B., "[Outer Space Arms Control: Can the USA, Russia and China Make this Happen](#)," *Journal of Conflict and Security Law*, June 2017.
- Al-Rodham, N., "[Weaponization and Outer Space Security](#)," *Global Policy*, 12 March 2018.

U.S. Counterspace Capabilities Threat Assessments

- See also the earlier annual *Space Threats Assessments* for [2020](#), [2019](#) & [2018](#), by Todd Harrison et al at CSIS.
- Weeden, B. and V. Sampson, [Global Counterspace Capabilities: An Open Source Assessment](#) (Secure World Foundation, April 2018).

Official USG statements:

- U.S. Department of Defense, [Defense Space Strategy: Summary](#) (June 2020).
- [“Fact Sheets: President Donald J. Trump is Unveiling an America First National Space Strategy,”](#) The White House, 23 March 2018.
- Office of the Assistant Secretary of Defense for Homeland Defense & Global Security, [“Space Domain Mission Assurance: A Resilience Taxonomy,”](#) Department of Defense, September 2015.

On U.S. Space Force

- [“Text of Space Policy Directive-4: Establishment of the United States Space Force,”](#) 19 February 2019.
- [“DoD Submits US Space Force Proposal,”](#) 1 March 2019.
- [“Does America Need a Space Force?”](#), Policy Roundtable, *Texas National Security Review*, (2018).

Session 14 (16 August): Quantum Technologies and International Security

Guiding Questions:

- How are quantum technologies in computing, sensors, and communications advancing? Think about key indicators of quantum advantage, the number of coherent qubits running programs, and retaining the talent pool.
- What applications of quantum technologies—computing, sensors, communications—are most relevant to international security?
- To what extent will quantum technologies revolutionize cryptography, precision guidance, and radar/sensors?
- What are the geopolitical implications of advances in quantum technologies?

Required Readings:

- [Quantum Computing: Tech Factsheets for Policymakers](#) (Harvard University, Spring 2020).
- Biercuk, M.J. & R. Fontaine, [“The Leap into Quantum Technology: A Primer for National Security Professionals,”](#) *War on the Rocks*, 17 November 2017.
- Smith, F.L., [“Quantum technology hype and national security,”](#) *Security Dialogue*, 51:5 (2020): 499-516.
- Kania, E. & J. Costello, [Quantum Hegemony? China’s ambitions and the challenge to U.S. innovation and leadership](#) (CNAS, September 2018).

Recommended Readings:

On Quantum Technologies and International Security

- Lindsay, J., [“Demystifying the Quantum Threat: Infrastructure, Institutions, and Intelligence Advantage,”](#) *Security Studies*, 29:2 (2020): 335-61.
- Lindsay, J., [“Surviving the Quantum Cryptocalypse,”](#) *Strategic Studies Quarterly*, Summer 2020, pp.49-73.
- Biercuk, M.J., [“Read before pontificating on quantum technology,”](#) *War on the Rocks*, 13 July 2020.
- Gamberini, S.J. & L. Rubin, [“Quantum Sensing’s Potential Impacts on Strategic Deterrence and Modern Warfare,”](#) *Orbis*, 65:2 (2021): 354-68.
- Parker, E., [Commercial and Military Applications and Timelines for Quantum Technology](#) (RAND, 2021).

On Quantum Technologies

- [“An Introduction to Quantum Computing,”](#) 5 video series (total 20 mins).
- Gerbert, P. & F. Rueß, [The Next Decade in Quantum Computing](#) (Boston Consulting Group, Nov. 2018).
- Matuschak, A. & M. Nielsen, [Quantum Computing for the Very Curious](#) [This gets very technical.]
- See also the [U.S. National Quantum Initiative Act](#) (2018). This bill directs the President to implement a National Quantum Initiative Program to, among other things, establish the goals and priorities for a 10-year plan to accelerate the development of quantum information science and technology applications.

Policies

Instructor Response Time

I will respond to emails within 24 hours on weekdays and on the next business day over weekends and holidays.

I will return written assignments by the following session's class. I will provide targeted text-based feedback to individual students.

Statement on Inclusive Teaching

In support of inclusive excellence, the Elliott School is committed to supporting our faculty and students in exercising inclusive teaching throughout our curriculum. All faculty members are expected to practice inclusive teaching as outlined in the [ESIA inclusive teaching statement](#) and to include a stated commitment in the syllabus. Resources for inclusive teaching can be found [here](#).

Differences in time Zone

All the times in this Blackboard course correspond to the U.S. Eastern Time zone (e.g., Washington, DC). It is your responsibility to convert these times to the time zone of your location so that you can meet this course's deadlines.

Inclement Weather

Please note that online courses at the George Washington University will continue to be held even when the University is closed for inclement weather.

GW Acceptable Use for Computing Systems and Services

All members of the George Washington University must read and comply with the Acceptable Use Policy when accessing and using computing systems and services, including email and Blackboard. Please read [the Acceptable Use Policy](#) to familiarize yourself with how GW information systems are to be used ethically.

Netiquette

Please observe the following rules of netiquette for communicating online:

- Remain professional, respectful, and courteous at all times.
- Remember that a real human being wrote each post and will read what you write in response. It is easy to misinterpret discussion posts. Let's give the benefit of the doubt.
- If you have a strong opinion on a topic, it is acceptable to express it as long as it is not phrased as an attack. Please be gracious with differing opinions.
- When upset, wait a day or two prior to posting. Messages posted (or emailed) in anger are often regretted later.
- Proofread and use the spell check tool when you type a post. It makes the post easier to read and helps your readers understand what you are saying.

I reserve the right to delete any post that is deemed inappropriate for the discussion forum, blog, or wiki without prior notification to the student. This includes any post containing language that is offensive, rude, profane, racist, or hateful. Posts that are seriously off-topic or serve no purpose other than to vent frustration will also be removed.

Academic Integrity

To ensure a fair and enjoyable learning experience for all, this course will comply with the University's [Code of Student Conduct](#). The [GW Code of Academic Integrity](#) defines academic dishonesty as "cheating of any kind, including misrepresenting one's work, taking credit for work of others without crediting them and without appropriate authorization, and the fabrication of information" (page 1). Common examples of academic dishonesty include but are not limited to cheating, fabrication, plagiarism, falsification, forgery of University academic documents, and facilitating academic dishonesty by others.

Please review [GW's policy on academic integrity](#). All graded work must be completed in accordance with the George Washington University Code of Academic Integrity. For more information see [Academic Dishonesty Prevention](#).

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Unauthorized downloading, distributing, or sharing of any part of a recorded lecture or course materials, as well as using provided information for purposes other than the student's own learning may be deemed a violation of GW's Student Conduct Code.

FERPA

Personal Information

GW complies with FERPA. As such, student personal information from this course will not be disclosed. For more information on FERPA, please consult the GW Office of the Registrar.

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Course lectures may be audio/video recorded. Recordings will be made available to students in this class.

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At the George Washington University, we believe that diversity and inclusion are crucial to an educational institution's pursuit of excellence in learning, research, and service. Acts of bias, hate, or discrimination are anathema to the university's commitment to educating citizen leaders equipped to thrive and to serve in our increasingly diverse and global society. We strongly encourage students to [report possible bias incidents](#). For additional information, click [here](#).

Disability Support Services & Accessibility

If you may need disability accommodations based on the potential impact of a disability, please [register with Disability Support Services](#) (DSS). If you have questions about disability accommodations, contact DSS at 202-994-8250 or dss@gwu.edu or visit them in person in Rome Hall, Suite 102. For additional information [visit the DSS page](#).

For information about how the course technology is accessible to all learners, see the following resources:

[Blackboard accessibility](#)

[Kaltura \(video platform\) accessibility](#)

[Microsoft Office accessibility](#)

[Adobe accessibility](#)

[YouTube accessibility policy](#) - please consult the [accessibility information site for the Google Suite of products](#).

Religious Observances

In accordance with University policy, students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. For details and policy, click [here](#).

Mental Health Services

The University's Mental Health Services offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include: crisis and emergency mental health consultations confidential assessment, counseling services (individual and small group), and referrals. For additional information call 202-994-5300 or [visit their site](#).

Emergency Preparedness and Response Procedures

The University has asked all faculty to inform students of these procedures, prepared by the GW Office of Public Safety and Emergency Management in collaboration with the Office of the Executive Vice President for Academic Affairs.

To Report an Emergency or Suspicious Activity

Call the University Police Department at 202-994-6111 (Foggy Bottom) or 202-242-6111 (Mount Vernon).

Shelter in Place – General Guidance

Although it is unlikely that we will ever need to shelter in place, it is helpful to know what to do just in case. No matter where you are, the basic steps of shelter in place will generally remain the same.

- If you are inside, stay where you are unless the building you are in is affected. If it is affected, you should evacuate. If you are outdoors, proceed into the closest building or follow instructions from emergency personnel on the scene.
- Locate an interior room to shelter inside. If possible, it should be above ground level and have the fewest number of windows. If sheltering in a room with windows, move away from the windows. If there is a large group of people inside a particular building, several rooms may be necessary.
- Shut and lock all windows (for a tighter seal) and close exterior doors.
- Turn off air conditioners, heaters, and fans. Close vents to ventilation systems as you are able. (University staff will turn off ventilation systems as quickly as possible).

- Make a list of the people with you and ask someone to call the list in to UPD so they know where you are sheltering and who is with you. If only students are present, one of the students should call in the list.
- Await further instructions. If possible, visit [GW Campus Advisories](#) for incident updates or call the GW Information Line 202-994-5050.
- Make yourself comfortable and look after one other. You will get word as soon as it is safe to come out.

Evacuation

An evacuation will be considered if the building we are in is affected or we must move to a location of greater safety. We will always evacuate if the fire alarm sounds. In the event of an evacuation, please gather your personal belongings quickly (purse, keys, GWorld card, etc.) and proceed to the nearest exit. Every classroom has a map at the door designating both the shortest egress and an alternate egress. Anyone who is physically unable to walk down the stairs should wait in the stairwell, behind the closed doors. Firemen will check the stairwells upon entering the building.

Once you have evacuated the building, proceed to our primary rendezvous location: the courtyard area between the GW Hospital and Ross Hall. In the event that this location is unavailable, we will meet on the ground level of the Visitors Parking Garage (I Street entrance, at 22nd Street). From our rendezvous location, we will await instructions to re-enter the School.

Alert DC

Alert DC provides free notification by e-mail or text message during an emergency. Visit [GW Campus Advisories](#) for a link and instructions on how to sign up for alerts pertaining to GW. If you receive an Alert DC notification during class, you are encouraged to share the information immediately.

GW Alert

GW Alert provides popup notification to desktop and laptop computers during an emergency. In the event that we receive an alert to the computer in our classroom, we will follow the instructions given. You are also encouraged to download this application to your personal computer. Visit [GW Campus Advisories](#) to learn how.

Additional Information

Additional information about emergency preparedness and response at GW or the University's operating status can be found on [GW Campus Advisories](#) or by calling the GW Information Line at 202-994-5050.