

Course Code: PSCI 384	
Technology and International Politics	
Academic Year and Term: 2021-2022 Spring Semester	
Lectures: HH334, 2:30-5:20 on Mondays	
Dr. Alexander Lanoszka alexander.lanoszka@uwaterloo.ca Office Hours: By appointment over Teams	Evaluation Criteria: 15% Participation 20% Take-Home Midterm 30% Technology Futures Paper 35% Take-Home Final

Course Description

This course examines the relationship between technology and international security, with a focus on how technologies have altered political organization, economic development, national security strategies and military competition. Case studies may include chariots, motorized armour, aircraft, nuclear weapons, surface ships, cyber-security, gene editing, and others.

Pedagogical Approach

This course will comprises 12 lectures, supported by PowerPoint presentations made available to students, either right before or soon after the actual session. These lectures will involve interactive classroom discussions to discuss issues raised in the presentations, readings, and other course materials.

For my part, I promise to provide students with the tools necessary to succeed academically whether it is by giving them clear requirements for assignments or by giving them detailed and timely feedback. Please do not hesitate to ask questions that they might have, whether with respect to my lecture, to the assigned readings, or to current events that may be relevant that week. I must emphasize that if you

are confused about something, then at least one of your classmates shares the same confusion. As such, do not hesitate to ask questions.

Finally, you will notice that for each module I have a set of links under the subheading “Media.” These links are not mandatory to watch or to listen. Nevertheless, I believe that these multimedia (podcasts, YouTube videos, etc.) can be of complimentary value to the material that make up the module. I will add or suggest more as I find them over the course of the term.

Assessment

15% Classroom Participation

I expect students to participate in discussions regarding the class material and weekly readings. As such, I will evaluate students based on the frequency and quality of their interventions. Students will receive something between 11 and 15 if they make an intervention in the discussion board for at least two-thirds of the modules. The quality of the intervention also matters such that, contrary to Joseph Stalin, quantity does not have a quality all of its own. Indeed, any attempt to dominate or to shut down discussion will result in a subtraction of your grades. Students will receive 6-10 if they do not post on most weeks and/or have sporadic interventions over the course of the term. Students will receive 1-5 if they fail to post on the discussion board often and remain silent over the course of the term. You have to be a complete no-show to get 0.

20% Take-Home Midterm (5 pages)

This take-home midterm, due 10 June 2022 at 23:59 ET, will be based on the course material drawn from modules 1-5, with standard late fees kicking at 0:00 ET on 11 June 2022. I expect that students will reference at least some of the readings from those days in answering any question asked of them. The midterm exam will be given one week before the deadline. I do expect proper referencing and adherence to the essay formatting guidelines listed below.

30% Technological Futures Paper (8-9 pages)

For this paper, you will choose one technology from the list below and write an essay on how that technology will impact politics. To help organize your thoughts, here is a list of questions that can help frame your discussion. Some of these questions overlap and may even be restatements.

- Are there existing technologies that are similar? If so, was the emergence of that technology a difference in degree or of type? What can be learned from that historical experience?
- Are there groups within society that would benefit the most from adopting or acquiring this technology? Are there any losers?
- What would be the effect on political organisation? Would it lead to greater centralization of political control? Or would it lead to decentralization? In whose authority and at what scale (local to planetary)?
- Would this technology be good for democracy or for autocracy?
- If applicable, what are some countermeasures that losers or adversaries might adopt in response?
- What ethical or moral issues attend the introduction and/or incorporation of this new technology? What new standards of behavior would emerge, if any?
- What would be impact of this technology on economic production and consumption? What distributional consequences would this technology have?
- How will this technology affect military strategy and/or military alliances?
- Will this technology reward cooperation or encourage conflict?

Technologies for consideration (fictional portrayals are only suggestive):

- Transporter (*Star Trek*)
- Holodeck (*Star Trek*)
- Replicator (*Star Trek*)
- Cloaking device (*Star Trek*)
- Universal translator (*Star Trek*)

- Replicant (*Blade Runner*)
- Cylon (*Battlestar Galactica*)
- Cloning (*Star Wars*)
- Cybernetics (*Star Wars*)
- Sentient computing (*2001: A Space Odyssey*)
- Subconscious infiltration (*Inception*)

Be sure to define your terms and to use proper referencing, in addition to following the guidelines below. A strong essay will draw on the concepts covered in class as well as lean on extensive research. Because these technologies remain (largely) in the realm of science fiction, I understand that there is no direct historical evidence here. Nevertheless, you can rely on analogical reasoning and use historical examples to substantiate your conjectures. Exemplary essays from the last time I taught this course are available so that you can have a better sense of how a strong essay looks. A good bibliography contains ten references.

This paper is due at 23:59 ET on 8 July 2022, with standard late fees kicking at 0:00 EST on 9 July 2022.

35% Take-Home Final (7-8 pages)

This take-home final due at 23:59 ET, 2 August 2022, will be based on the course material drawn from modules 6 through 11. Students must reference at least some of the readings from those days in answering any question asked of them. The final exam will be given one week before the deadline. I do expect proper referencing and adherence to the essay formatting guidelines listed below. A good bibliography contains at least ten references.

Essay Formatting and Late Policy

Other rules governing the formatting of all written work submitted for this course:

- 1” margins all around
- 12 pt font

- Page numbers—if your first page is the cover page, then set this page number to 0. (In Word, select “Page Numbers” from the “Insert” menu and click on “Format.”)
- Consistent usage of one standard citation style (e.g., Chicago, MLA, etc.)
- A standard cover page that includes the word count
- All written work **MUST** be submitted in .doc or .docx format. **NO PDFS!**

Failure to format your essay properly will result in a deduction of your mark.

Failure to submit your written assignment before the deadline (23:59 ET of the scheduled date) will result in a 10% deduction of your mark on the assignment per day thereafter. This rule applies to all written work. No exceptions.

Office Hours

Owing to the pandemic and timing constraints, we will have office hours by appointment by way of Microsoft Teams. Send me an email and we will arrange to have a meeting at a mutually convenient time. I will not explain to you what was discussed in any session that you might have missed.

Letter Writing Requests

Absolutely **DO NOT** put my name down as a reference without asking for my permission first. I strongly encourage all students contemplating further postgraduate studies to consult with me first. Please note that I have very specific guidelines about letter writing. Read the document first before approaching me. Doing so will save everyone time and energy.

<https://tinyurl.com/tax5hch6>

Email Confirmation and Communication

Once you have read through this syllabus, please send me an email with subject line “**PSCI 384: Syllabus Read**”. In this email, state your name, your reasons for enrolling in this course, and previous courses that may be relevant. The email should be no longer than four sentences.

Please note that all emails sent to me should include “PSCI 384” at the beginning of the subject line. Responses could take up to 1-2 business days (no weekends). If I believe that answering your email would take me more than five minutes to do, then I would invite you to meet me during my office hours instead. If you have not received a response after 2 business days, then please resend your email. I will ONLY respond to emails that are sent from your uwaterloo.ca account.

Twitter and Website

I often tweet on issues relating to European security and U.S. alliance politics, with much focus on military power and Russia’s invasion of Ukraine. During the term I might tweet relevant articles that bear directly on the issues raised in this course. Tweeted articles are not required reading. I am indifferent as to whether you follow me on Twitter.

You can learn more about me and my work at www.alexlanoszka.com.

Academic Integrity

To maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

- (a) **Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for her/his actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 - Student Discipline. For information on categories of offences and types of penalties, students should refer to Policy 71 - Student Discipline at <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>.
- (b) **Grievance:** A student who believes that a decision affecting some aspect of her/his university life has been unfair or unreasonable may have grounds for

initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4 at <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>.

- (c) **Appeals:** A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm> See also: Student Appeals at <https://uwaterloo.ca/arts/current-undergraduates/student-support/artsundergraduate-office>.
- (d) **Turnitin.com:** Plagiarism detection software (Turnitin) will be used to screen assignments in this course. This step serves to verify that use of all material and sources in assignments is documented. In the first week of the term, details will be provided about the arrangements for the use of Turnitin in this course. If you do not wish to have your assignments submitted to Turnitin, an alternative arrangement between you and I can be worked out where your work can still be rigorously assessed to ensure its academic integrity.

Accommodation for Students with Disabilities

The AccessAbility Services (AS) Office collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS Office at the beginning of each academic term.

NOTA BENE: THIS SYLLABUS IS SUBJECT TO MINOR CHANGES. PLEASE REFER TO THE LEARN WEBSITE FOR THE MOST UP-TO-DATE VERSION.

Course Schedule and Reading List

SCHEDULE	
2 May 2022	1. Course Introduction
9 May 2022	2. The Medieval Period
16 May 2022	3. Fortifications and the Military Revolution
23 May 2022	VICTORIA DAY
30 May 2022	4. The Great Divergence
6 June 2022	5. Industrialisation and Nationalism
“Take-Home” Midterm Due 10 June at 23:59 ET	
13 June 2022	6. The Modern System of Warfare
20 June 2022	7. Sea Power and Air Power
27 June 2022	8. Nuclear Weapons
4 July 2022	9. Drones and the Precision Revolution
Technology Futures Paper Due 8 July at 23:59 ET	
11 July 2022	10. The Internet
18 July 2022	11. Arms Control
25 July 2022	12. Transhumanism
“Take-Home” Final Due 2 August at 23:59 ET	

Meeting 1: Course Introduction

Required Readings:

Leo Marx, "Technology: The Emergence of a Hazardous Concept," *Technology and Culture*, vol. 51, no. 3 (2010): 561-577.

Recommended Readings:

Jean-Jacques Solomon, "What is Technology? The Issue of Its Origins and Definitions," *History and Technology*, vol. 1, no. 2 (1984): 113-156.

Peter Roger and Stuart Moorey, "The Emergence of the Light, Horse-Drawn Chariot in the Near-East c. 2000-1500 BC." *World Archaeology*, vol. 18, no. 2 (1986): 196-215.

John W. Eadie, "The Development of Roman Mailed Cavalry," *The Journal of Roman Studies*, vol. 57, no. 1-2 (1967): 161-173.

Peter Turchin, Thomas E. Currie, Edward AL Turner, and Sergey Gavrilets. "War, Space, and the Evolution of Old World Complex Societies," *Proceedings of the National Academy of Sciences*, vol. 110, no. 41 (2013): 16384-16389.

Russell C. Thomas, "Does Diffusion of Horse-Related Military Technologies Explain Spatiotemporal Patterns of Social Complexity 1500 BCE-AD 1500?" *Proceedings of the National Academy of Sciences*, vol. 111, no. 4 (2014): E414-E414. [RESPONSE TO THE TURCHIN ET AL. PIECE.]

Lu Liancheng, "Chariot and Horse Burials in Ancient China," *Antiquity*, vol. 67, no. 257 (1993): 824-838.

Media:

“The Evolution of Horses,” *In Our Time*, British Broadcasting Corporation (2020): <https://www.bbc.co.uk/programmes/m000fp9y>.

“The Agricultural Revolution: Crash Course World History #1,” *CrashCourse*, YouTube, 26 January 2012, https://www.youtube.com/watch?v=Yocja_N5s1I.

Meeting 2: The Medieval Period

Required Readings:

Mancur Olson, *Power and Prosperity* (New York: Basic Books, 2000): chapter 1.

Kelly R. DeVries and Robert D. Smith, *Medieval Military Technology*, 2nd ed. (Toronto, Canada: University of Toronto Press, 2012): 99-114.

Richard W. Kauper, *Chivalry and Violence in Medieval Europe* (New York: Oxford University Press, 2001): 11-39 (chapters 1-2).

Karl F. Friday, *Samurai, Warfare and the State in Early Medieval Japan* (London, UK: Routledge, 2004): 1-18 (introduction).

Recommended Readings:

Susan Reynolds, “The Historiography of the Medieval State,” in *Companion to Historiography*, ed. M. Bentley (Abingdon, UK: Routledge, 1997): 117-139.

William Urban, “The Teutonic Knights and Baltic Chivalry,” *Historian*, vol. 56, no. 3 (1994): 519-530.

Albert E. Dien, “The Stirrup and its Effect on Chinese Military History,” *Ars Orientalis*, vol. 16, no. 1 (1986): 33-56.

Karl F. Friday, *Samurai, Warfare and the State in Early Medieval Japan* (London, UK: Routledge, 2004): 34-62 (chapter 2).

Kozo Yamamura, “The Increasing Poverty of the Samurai in Tokugawa Japan, 1600–1868,” *The Journal of Economic History*, vol. 31, no. 2 (1971): 378-406.

Peter Heather, “The Huns and the End of the Roman Empire in Western Europe,” *English Historical Review*, vol. 110, no. 435 (1995): 4-41. [FOR HISTORICAL BACKGROUND ON THE WESTERN ROMAN EMPIRE.]

Media:

Historians usually tie the beginning of the (Western) Roman Empire’s (very long) decline to the death of Emperor Marcus Aurelius and the subsequent reign of his son Commodus. The six-episode first season of Roman Empire (called “Reign of Blood”) is a solid portrayal of Commodus’s life history. See <https://www.netflix.com/ca/title/80096545>. That said, it may be better to date beginning of the Western Roman Empire’s decline and fall much later.

“150 - The Perils of Mismanagement” and “152 - The Storm Before the Storm,” *The History of Rome Podcast*, Mike Duncan, available at <https://podcasts.apple.com/us/podcast/the-history-of-rome/id261654474>.

“The Norman Yoke,” *In Our Time*, British Broadcasting Corporation (2008): <https://www.bbc.co.uk/programmes/b009q7zm>.

“Medieval Battles | What Went Down At the Front Lines,” *Weird History*, 15 January 2019, <https://www.youtube.com/watch?v=3JO8RkuHPI4>.

“The Samurai,” *In Our Time*, British Broadcasting Corporation (2009): <https://www.bbc.co.uk/programmes/b00pcm9f>

“Le Morte d’Arthur,” *In Our Time*, British Broadcasting Corporation (2009): <https://www.bbc.co.uk/programmes/b01pp989>.

Meeting 3: Fortifications and the Military Revolution

Required Readings:

Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, 2nd ed. (Cambridge: Cambridge University Press, 1996): 6-44.

Jeremy Black, "The Military Revolution," *Teaching History*, vol. 52 (1988): 34-36.

Tonio Andrade, *The Gunpowder Age: China, Military Innovation, and the Rise of the West in World History* (Princeton, NJ: Princeton University Press, 2017): 75-102.

Kelly DeVries, "Gunpowder Weaponry and the Rise of the Early Modern State," *War in History*, vol. 5, no. 2 (1998): 127-145.

Derek S. Denman, "On Fortification: Military Architecture, Geometric Power, and Defensive Design," *Security Dialogue*, vol. 51, no. 2-3 (2019): 231-247.

Recommended Readings:

Alex Roland, "Technology and War: The Historiographical Revolution of the 1980s," *Technology and Culture*, vol. 34, no. 1 (1993): 117-134.

Michael C. Paul, "The Military Revolution in Russia, 1550-1682," *The Journal of Military History*, vol. 68, no. 1 (2004): 9-45.

Gábor Ágoston, "Firearms and Military Adaptation: The Ottomans and the European Military Revolution, 1450–1800," *Journal of World History*, vol. 25, no. 1 (2014): 85-124.

Matthew Stavros, "Military Revolution in Early Modern Japan," *Japanese Studies*, vol. 33, no. 3 (2013): 243-261.

"The Siege of Orléans," *In Our Time*, British Broadcasting Corporation (2007): <https://www.bbc.co.uk/programmes/b00713yq>.

"A Mini Guide to Medieval Castles | Animated History," *English Heritage*, YouTube, 7 June 2017, <https://www.youtube.com/watch?v=RXXDThkJ3Ew>.

"How to Take a Medieval Castle | Animated History," *English Heritage*, YouTube, 7 June 2017, https://www.youtube.com/watch?v=xNeNPk4D_Ng.

"The Different Types of Medieval Castles," *YouTube*, 7 December 2019, <https://www.youtube.com/watch?v=Hv6Yl45g1y4>.

Meeting 4: The Great Divergence

Required Readings:

Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, NJ: Princeton University Press, 2000): 3-23.

Gregory Clark and Robert C. Feenstra, "Technology in the Great Divergence," in *Globalization in Historical Perspective*, eds. M.D. Bordo, A.M. Taylor, and J.G. Williamson (Chicago, IL: University of Chicago Press, 2003): 277-312. SKIP THE EQUATIONS.

Read comment by Joel Mokyr, 314-321 attached to Clark and Feenstra reading.

Recommended Readings:

Joel Mokyr, "Long Term Economic Growth and the History of Technology," In *Handbook of Economic Growth*, eds. Philippe Aghion and Steven N. Durlauf (Amsterdam, NL: Elsevier, 2005): 113-1180.

Sevket Pamuk, "The Black Death and the Origins of the 'Great Divergence' across Europe, 1300-1600," *European Review of Economic History*, vol. 11, no. 3 (2007): 289-317.

Nicholas Crafts, "Explaining the First Industrial Revolution: Two Views," *European Review of Economic History*, vol. 15, no. 1 (2011): 153-168.

Peer H.H. Vries, "Are Coal and Colonies Really Crucial? Kenneth Pomeranz and the Great Divergence," *Journal of World History*, vol. 12, no. 2 (2001): 407-446.

Media:

“The Black Death,” *In Our Time*, British Broadcasting Corporation (2008): <https://www.bbc.co.uk/programmes/b00bcqt8>.

“Why Did Europe Conquer the World? By Philip T. Hoffman,” *Princeton University Press*, YouTube, 15 July 2015, <https://www.youtube.com/watch?v=VYT73cCK-N0>.

Meeting 5: Industrialization and Nationalism

Required Readings:

Moshe Justman and Mark Gradstein, “The Industrial Revolution, Political Transition, and the Subsequent Decline in Inequality in 19th-Century Britain,” *Explorations in Economic History*, vol. 36, no. 2 (1999): 109-127.

Emma Griffin, “Diets, Hunger, and Living Standards during the British Industrial Revolution,” *Past and Present*, 239, no. 1 (2018): 71-111.

Daniele Conversi, “Homogenisation, Nationalism, and War: Should We Still Read Ernest Gellner?” *Nations and Nationalism*, vol. 13, no. 3 (2007): 371-394.

Recommended Readings:

Sara Horrell and Deborah Oxley, “Bringing Home the Bacon? Regional Nutrition, Stature, and Gender in the Industrial Revolution,” *The Economic History Review*, vol. 65, no. 4 (2012): 1354-1379.

Gregory Clark, “Human Capital, Fertility, and the Industrial Revolution,” *Journal of the European Economic Association*, vol. 3, no. 2-3 (2005): 505-515.

Ronald Inglehart and Christian Welzel. “How Development Leads to Democracy: What We Know about Modernization,” *Foreign Affairs*, vol. 88, no. 2 (2009): 33-48.

Barry R. Posen, “Nationalism, the Mass Army, and Military Power,” *International Security*, vol. 18, no. 2 (1993): 80-124.

Media:

“The Industrial Revolution (18-19th Century),” *Simple History*, YouTube, 1 October 2017, <https://www.youtube.com/watch?v=xLhNP0qp38Q>.

“The Industrial Revolution,” *In Our Time*, British Broadcasting Corporation (2010): <https://www.bbc.co.uk/programmes/b00wqdc7>.

“Consequences of the Industrial Revolution,” *In Our Time*, British Broadcasting Corporation (2010): <https://www.bbc.co.uk/programmes/b00wr9r7>.

“Factories,” *Fifty Things that Made the Modern Economy*, British Broadcasting Corporation, 7 July 2019, <https://www.bbc.co.uk/programmes/w3csz2wj>.

“Industrial Revolution,” *British Broadcasting Corporation Documentary*, 9 August 2018, https://www.youtube.com/watch?v=GYln_S2PVYA.

“What Hygiene Was Really Like During the Industrial Revolution,” *Weird History*, 4 December 2019, https://www.youtube.com/watch?v=Uan6pbm_nfQ.

Meeting 6: The Politics of the Modern System of Warfare

Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton, NJ: Princeton University Press, 2006): 28-51.

Caitlin Talmadge, “Different Threats, Different Militaries: Explaining Organizational Practices in Authoritarian Armies,” *Security Studies*, vol. 25, no. 1 (2016): 111-141.

Kristen A. Harkness, “The Ethnic Army and the State: Explaining Coup Traps and the Difficulties of Democratization in Africa,” *Journal of Conflict Resolution*, vol. 60, no. 4 (2016): 587-616.

Recommended Readings:

Risa Brooks, “Paradoxes of Professionalism: Rethinking Civil-Military Relations in the United States,” *International Security*, vol. 44, no. 4 (2020): 7-44.

Todd S. Sechser and Elizabeth N. Saunders, “The Army You Have: The Determinants of Military Mechanization, 1979–2001,” *International Studies Quarterly*, vol. 54, no. 2 (2010): 481-511.

Jon Lindsay and Erik Gartzke, “Politics by Many Other Means: The Comparative Strategic Advantages of Operational Domains,” *Journal of Strategic Studies*, 1-34.

Peter D. Feaver, “Civil-Military Relations,” *Annual Review of Political Science*, vol. 2, no. 1 (1999): 211-241.

Michael Makara, “Coup-Proofing, Military Defection, and the Arab Spring,” *Democracy and Security*, vol. 9, no. 4 (2013): 334-359.

David Betz, “Citadels and Marching Forts: How Non-Technological Drivers are Pointing Future Warfare Towards Techniques from the Past,” *Scandinavian Journal of Military Studies*, vol. 2, no. 1 (2018): 30–41.

Media:

“Stormtrooper - German Special Forces of WWI,” *The Great War*, YouTube, 30 May 2016, <https://youtu.be/XsSxBSYdlsA>.

“German Tactics for 1918 Spring Offensive,” *The Great War*, YouTube, 8 May 2018, <https://youtu.be/wMfQXPya9zs>.

“Why the Battle of Vimy Ridge Matters,” *The National (CBC)*, YouTube, 6 April 2017, <https://www.youtube.com/watch?v=3LP22iTXqS8>.

Meeting 7: Sea Power and Air Power

Required Readings:

Barry M. Gough, “Maritime Strategy: The Legacies of Mahan and Corbett as Philosophers of Sea Power,” *The RUSI Journal*, vol. 133, no. 4 (1988): 55-62.

John B. Hattendorf, “The Idea of a “Fleet in Being” in Historical Perspective,” *Naval War College Review*, vol. 67, no. 1 (2014): 43-60.

Tami Davis Biddle, “British and American Approaches to Strategic Bombing: Their Origins and Implementation in the World War II Combined Bombing Offensive,” *Journal of Strategic Studies*, vol. 18, no. 1 (1995): 91-144.

Robert Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996): 55-86.

Recommended Readings:

Alfred T. Mahan, *The Influence of Sea Power Upon History, 1660-1783* (Dover, 1987 [1890]), excerpt from chapter 2.

Julian Corbett, *Principles of Maritime Strategy* (Dover Books, 2004): 49-83.

David Syrett, “The Role of the Royal Navy in the Napoleonic Wars After Trafalgar, 1805-1814,” *Naval War College Review*, vol. (1979): 71-84.

John H. Maurer, “The Struggle for Sea Power: Lessons from the Great War,” *Orbis*, vol. 62, no. 2 (2018): 184-203.

Yves-Heng Lim, “The Driving Forces behind China's Naval Modernization,” *Comparative Strategy*, vol. 30, no. 2 (2011): 105-120.

Stephen D. Biddle, “Allies, Airpower, and Modern Warfare: The Afghan Model in Afghanistan and Iraq,” *International Security*, vol. 30, no. 3 (2006): 161-176.

Tami Davis Biddle, “Dresden 1945: Reality, History, and Memory,” *Journal of Military History*, vol. 72, no. 2 (2008): 413-450.

Correlli Barnett. “The Fallibility of Air Power,” *The RUSI Journal*, vol. 145, no. 5 (2000): 59-60.

Earl H. Tilford, “Operation Allied Force and the Role of Air Power,” *Parameters*, vol. 29, no. 4 (1999): 24-38.

Media:

Patrick Bratton and Jacqueline E. Whitt, “Mahan and Sea Power - Great Strategists,” *War Room Podcast*, 15 September 2017, <https://warroom.armywarcollege.edu/special-series/great-strategists/mahan-sea-power-great-strategists-episode-4/>.

“Sea Control 171 - Clausewitz, Corbett, and Corvettes with Sascha Rackwitz,” *Center for International Military Security*, <http://cimsec.org/podcasts>.

“NATO Maritime Power - Securing the Seas,” *NATO*, YouTube, 10 July 2016, https://www.youtube.com/watch?v=0u27-sJ_OJ0.

Lincoln Paine, “Ruling the Waves,” *Engelsberg Ideas*, 4 October 2021, <https://engelsbergideas.com/essays/ruling-the-waves/>.

Meeting 8: Nuclear Weapons

Required Readings:

Scott D. Sagan, "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb," *International Security*, vol. 21, no. 3 (1996-1997): 54-86.

Keir A. Lieber, *War and the Engineers: The Primacy of Politics over Technology* (Ithaca, NY: Cornell University Press, 2005): 123-148.

Amy Woolf, "Nonstrategic Nuclear Weapons," *Congressional Research Service*, 6 September 2019.

Christopher J. Watterson, "Competing Interpretations of the Stability–Instability Paradox: The Case of the Kargil War," *The Nonproliferation Review* 24, no. 1-2 (2017): 83-99.

Nina Tannenwald, "The Vanishing Nuclear Taboo," *Foreign Affairs*, vol 97, no. 1 (2018): 16-24.

Recommended Readings:

Matthew Kroenig, "Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes," *International Organization*, vol. 67, no. 1 (2013): 141-171.

Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, NY: Cornell University Press, 1989): 1-45.

Matthew Fuhrmann and Todd Sechser, "Crisis Bargaining and Nuclear Blackmail," *International Organization*, vol. 67, no. 1 (2013): 173-195.

Meeting 9: The Precision Revolution and Drones

Required Readings:

Thomas G. Mahnken, "Weapons: The Growth and Spread of the Precision-Strike Regime," *Daedalus* (2011): 45-57.

Andrea Gilli and Mauro Gilli. "The Diffusion of Drone Warfare? Industrial, Organizational, and Infrastructural Constraints," *Security Studies*, vol. 25, no. 1 (2016): 50-84.

Eado Hecht, "Drones in the Nagorno-Karabakh War: Analyzing the Data," *Military Strategy Magazine*, vol. 7, no. 4 (2022): 31-37.

Ash Rossiter, "Drone Usage by Militant Groups: Exploring Variation in Adoption," *Defense & Security Analysis*, vol. 34, no. 2 (2018): 113-126.

Recommended Readings:

Meeting 10: The Internet

Damien Van Puyvelde and Aaron F. Brantly, *Cybersecurity: Politics, Governance and Conflict in Cyberspace* (Cambridge, UK: Polity, 2019): chapter 2.

Thomas Rid, “Cyber War Will Not Take Place,” *Journal of Strategic Studies*, vol. 35, no. 1 (2013): 5-29.

Ivanka Barzashka, “Are Cyber-Weapons Effective? Assessing Stuxnet's Impact on the Iranian Enrichment Programme,” *The RUSI Journal*, vol. 158, no. 2 (2013): 48-56.

Travis Sharp, “Theorizing Cyber Coercion: The 2014 North Korean Operation against Sony,” *Journal of Strategic Studies*, vol. 40, no. 7 (2017): 898-926.

Recommended:

Julien Nocetti, “Content and Conquest: Russia and Global Internet Governance,” *International Affairs*, vol. 91, no. 1 (2015): 111-130.

Erik Gartzke and Jon R. Lindsay. “Weaving Tangled Webs: Offense, Defense, and Deception in Cyberspace,” *Security Studies*, vol. 24, no. 2 (2015): 316-348.

Anything by Jon Lindsay, quite honestly.

Amir Lupovici, “The Dog That Did Not Bark, the Dog That Did Bark, and the Dog That Should Have Barked: A Methodology for Cyber Deterrence Research,” *International Studies Review*, vol. 23, no. 4 (2021): 1672-1698.

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Fred Charles Iklé, “After Detection-What?” *Foreign Affairs*, vol. 39, no. X (1960): 208-X.

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Thomas C. Schelling, “What Went Wrong With Arms Control?” *Foreign Affairs*, vol. 64, no. 2 (1985-1986): 210-233.

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