

# INTA 8000-A Science, Technology, and International Affairs I (a.k.a. Technology and International Security)

Fall 2023

3 credits

Instructor: Professor Jon Lindsay

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Office Location: CODA E0974B (9<sup>th</sup> Floor)—Temporary during SCP move

Office hours: Friday 11:00a-12:00p, Biweekly starting 9/1/23, or by appointment

Course meeting: Friday, 11:00a-1:45p, Biweekly starting 8/25/23.

Location: Habersham 136

## Overview

This recently overhauled course focuses on the intersection of emerging technology and national security strategy. Previous iterations of this course have embodied the first part of the Sam Nunn Security Program (SNSP) and were a core requirement for the INTA S&T MS degree, thus emphasizing broader economic, governance, and policy dimensions of global science and tech policy. This version of the course is more focused on the national security implications of military-technological specialization and strategic complexity. The course also has a bias toward great power politics, although we will discuss asymmetric conflict and nonstate actors as well. A companion course in the spring will focus on complementary topics and methods for political analysis.

Technological innovation creates new options for conquest and plunder yet not always in equal measure, nor for all actors. Technology enables war, and war catalyzes changes in technology. Looking backward, some historical innovations in weaponry, notably aviation and nuclear technologies, have also encouraged innovation in strategic concepts. Looking forward, it is not clear how or if emerging technologies such as artificial intelligence or quantum computing will be used; for the same reasons, strategic theory becomes even more important. Technology does not determine politics in any simple or straightforward way. Whatever the future of military technology looks like, we can be sure that organizational, economic, and strategic factors will play an important role.

This course is designed help students to understand the complex interaction between technologies and strategic politics. It will not make you an expert on any given technology or country, but it will help them to begin asking the right questions. Students are expected to already have a working understanding of basic international relations concepts including the origins of wars, alliances, and international institutions. Students will be expected to engage with a heavy reading load and participate in seminar discussions.

This is a graduate level seminar, with a graduate level workload. The focus is on the implications of emerging technologies for grand strategy and military operations. The course begins with an overview of important strategic theories about enduring political phenomena—strategy, institutions, military power, and secret statecraft (i.e., intelligence). Then it explores implications for and of technologies in different military domains—land, sea, air, space, cyberspace. The course will expose students to classic and emerging debates about developments in sea power, nuclear weapons, space and counterspace weapons, cyber warfare including espionage and influence, robotics and unmanned systems (drones), artificial intelligence and and quantum computing.

### Learning Objectives

Students will be able to identify enduring and emerging strategic debates about different categories of military technology. Students will learn to apply international relations theory to analyze the grand strategic context of military technology. This course contributes to the following MS IAST learning outcome: “4. Students will develop research skills in order to produce a research or policy paper on specific technological and scientific issues in international affairs.” This course also contributes to the following INTA PhD learning outcome: “4. Students will be able to apply advanced research skills in producing publishable research that contributes to the body of scholarly work in technology and international affairs.” These learning outcomes will be assessed through the term paper.

### Assignments

- 15% Participation
- 35% Reflection papers (7x5%)
- 20% Book reviews (2x10%)
- 30% Term paper

### Participation

Students must come to discussion sessions prepared to discuss required readings for the week. Yes, there is a lot of reading in this course. This neither unusual for graduate school nor for careers in information-intensive fields like foreign policy, defense analysis, or intelligence. Note that “reading” in these fields does not necessarily mean reading every word slowly and carefully, as if savoring a good novel or performing scriptural exegesis. It does mean engaging with ideas, smartly and relentlessly, with discipline and purpose. It also means that you can and should skim some portions. See more tips below for reading efficiently and effectively.

I highly recommend that you read international news on a regular basis. Start with mainstream media like the New York Times, Washington Post, Wall Street Journal, but feel free to supplement. Note that your GT affiliation comes with free digital subscriptions to these papers—make sure you take advantage of this. You are also encouraged to regularly visit specialized foreign policy outlets like Foreign Affairs, Foreign Policy, Lawfare, or War on the Rocks.

I will keep notes on the quality and quantity of your participation. Evidence of active engagement includes asking and answering questions in class or office hours, to include clarifying, critiquing, applying, or extending arguments. Note, if you are uncomfortable speaking in group settings, then you can participate via weekly discussion boards on Canvas or see me during office hours to show me that you have read the material, by asking informed questions and discussing the material.

## Reflection papers

Our discussions in class will be driven by your engagement with the readings. Each Wednesday before class (upload to Canvas discussion board by 11:59pm) please submit a 2-3 page (~ 700 word) reflection paper. There are seven course sessions after the introduction. Please read through other students' reflections prior to class on Friday.

A good general strategy is to formulate ex-ante questions and thoughts about the weekly topic in advance of the readings, read the readings actively, write down thoughts about specific readings, then take some time off to walk around or do something else while your brain consolidates its thoughts, come back later and ponder your overall thoughts about the topic of the week, and then draft your paper. In your paper you are welcome to comment on anything in the readings that interested, inspired, confused, or frustrated you. But please try to respond to the following three questions in each paper:

- What are the overarching themes, debates, or arguments that these readings explore?
- How are these readings relevant to recent conflicts or issues in international security? Alternatively, how do recent events or the technical state-of-the-art challenge assumptions in the readings?
- What new, old, or unanswered questions do still you have after the readings?

I am looking for evidence that you have wrestled with ideas in the readings, lectures, and discussions. You are welcome to disagree with anything, but I must see evidence that you have engaged with the material as you articulate alternative points of view. You should discuss some of the required readings, but you do not necessarily have to discuss them all or in the same level of detail—I would be surprised if you could. No outside research is required, although you are welcome to use supplementary sources. This is more of a reflection paper, not a research paper.

## Book review

You will write two book reviews (~1200 words) during the course, one of a classic text, and one of a modern text. Please provide your rank ordered list of both column B and column C to me by Monday 8/28. Students who present the first reports (bargaining) will get an automatic 2 point bonus, which means you can get 12 points/120% for a good report.

Being able to write a book review is an important skill in many analytic communities. A book review helps your busy colleagues to get the feel for a book and decide whether they should invest in reading it themselves. Anticipating writing a review also helps you to read in a more focused way and retain what you've read more effectively. Elements of a good review include:

- Context for the book—debates or issues that motivate this book or make it relevant today for what audiences.
- Overview of general argument and themes, organization, and methodological approach.
- Evaluation of the book's strengths and weaknesses. Are you convinced by the argument and evidence? Skeptical? Enthusiastic? Disappointed?
- Use of quotes or examples from the book to make these points.

## Term paper

Your final paper should be **no more than 20 pages or 5,000 words**. Papers are due via Canvas no later than **11:59pm on 8 December**.

See tips below for writing well. Be sure to include a strong introduction that summarizes your question, argument, findings, and implications; I recommend you write this first and revise it again (and again) last.

The specific topic is up to you. I highly recommend you talk to me in advance about it. I am looking for evidence that you have wrestled with ideas in the readings, lectures, and discussions. You are welcome to disagree with anything, but I must see evidence that you have comprehended core concepts as you articulate alternative points of view. You should discuss some of the required readings, from at least a few different weeks. You do not have to discuss them all; that would result in scattered focus. No outside research is required, although you are welcome to use supplementary sources. The amount of outside sourcing or research will depend on your topic.

It is imperative that your paper make and sustain an argument. Arguments have counterarguments, which you should clearly state and fairly evaluate. I do not want to see random opinions or rote summaries of the material. To come up with an argument, ask yourself questions such as: Do traditional ideas illuminate any key features of cyber conflict? Or do they obscure key phenomena? Do we need new ideas? Do we need to rethink certain approaches? Are traditional assumptions appropriate or not? What was surprising, frustrating, provoking, or inspiring about the previous weeks? Don't feel limited by these questions. But do make an argument and evaluate counterarguments.

## Guidelines and Expectations

Here are a few inviolable rules, desirable norms, and friendly suggestions. They are intended to make this course a great experience for all.

**This is Sparta! grad school.** War is hard. Studying war is not easy. We will cover a lot of material in each session. You will need to research sources and supplementary material that are not included in the syllabus. I may call on you by name in class to offer summaries, reactions, or counterarguments to the readings or presentations. You are expected to have engaged with and arrive in class with thoughts or questions about the material. Please be prepared.

**OK, let's do this.** National security is full of fog and friction. The best laid syllabi for learning about it often fall apart upon first contact with intelligent students. Each course session will evolve dynamically depending on the interests and engagement of participants. This means that we may not necessarily get to every reading, and we may verge into topics not covered in the reading. I encourage you to stay engaged and flexible. Sessions will generally be organized as follows: we will begin with student presentations on specific countries, followed by discussions. This will give us some context for the more general theoretical material in the readings. Then, after a break, we will move on to more general discussion. I will try to preview the following week to guide your preparation. If we run out of steam early, then we may break early, but don't count on it.

## Reading

**Number One, Engage!** Deliberate and active engagement with course material, and with current national security debates, will prime you for discussion in class. Learning how to get through a lot of information in a smart and efficient way will serve you well in your education, and in your future career. I expect that you will come to class having read and thought about the material, and ready to engage in discussion about the material. I will try to give you a few ideas and questions to think about at the end of each session, highlighting readings to emphasize (or skim), to set us up for success.

**Read with purpose.** This class has a heavy reading load. Learning how to get through it all smartly and efficiently is a key skill, in graduate school and beyond. Don't just sit down to read a nonfiction book, academic article, or policy report straight through like it's a novel. It's not. You don't necessarily need to read everything. You do need to have some sense of everything. Here are a few tips:

- Before you delve into the details of any given article or book, come up with some questions to guide your reading. You can read very fast, and even effectively, when you are reading for a purpose. If you are just going a fishing trip, expecting the author to feed you, your learning will be slow and ineffective.
- Your goal is to figure out what the text is about before you dive in. Read the title. It's amazing how many people don't do this. Then read the title again. Read the abstract if there is one. Stop! Now ask yourself:
- What kind of text is this? Is it simply describing a problem? Is it making a theoretical/explanatory argument? Is it presenting or evaluating historical/empirical evidence? Is it science or policy? Is it advocating for particular position? Is it an historical document?
- Who is the author? What is their disciplinary or organizational affiliation? Does this suggest any assumptions about what matters and why? Why are they writing this particular text? Do they have an agenda? What dragon are they trying to slay?
- Read the title again. Now skim the text looking for headings, tables, and figures. A good table or figure might tell you 90% of what you need to know, especially if you have some background in the topic. Skim the citations to get a sense of what kind of evidence or literature is being used.
- Return to your framing questions. What do you expect to learn? What do you need to understand? What do you need to know to be convinced?
- Now you can read actively and critically to answer your questions. Skim the bits that are not relevant. If you are reading for a general argument, you might be able to skim detailed case studies. If you are reading for historical evidence, you might be able to skim the theoretical scaffolding.
- Return to your framing questions. You might have some new insights. You might be provoked, or excited. Lock in what you have learned by summarizing arguments, evidence, and impressions in writing.
- Be sure to come up with possible counterarguments, alternative explanations, or applications. This shows that you are intellectually engaged with the reading, not just taking a ride.

This sounds like a lot of extra work, I know. But it can really be more efficient, and certainly more effective, than passively reading an article straight through. The more you do this, the more it will become second nature, and you'll soon find yourself digesting more than you ever thought possible.<sup>1</sup>

## Participating

**Remember Aretha Franklin.** R-E-S-P-E-C-T. All people deserve to be treated with dignity and respect. In this class we expect—and hope—to have arguments and disagreements. We should expect to discuss uncomfortable topics, and we will encounter controversial points of view. But we should also strive to be cooperative in our study of conflict. Please make constructive comments and behave courteously. We all enjoy the right to free speech and assembly, and we also have a responsibility to maintain a safe, orderly, and healthy learning environment. Students and faculty should hold one another accountable in this regard.<sup>2</sup>

**I want to see you.** This is a fast-paced course. Missing sessions will put you at a disadvantage. Unless there is a valid emergency, students must attend all seminar sessions. Accommodations for emergencies and religious observances will be made. Otherwise, if I call on you and you are not in class, it will be awkward for everybody. Please arrive on time. Please be prepared and ready to participate.

**I want to hear from you.** I think about seminars as a conversation, not a one-way lecture. I want to hear your questions, critiques, and ideas! I may call on specific students to discuss the assigned readings. Sometimes we may go into smaller breakout groups, where it will be important to be prepared to facilitate discussion.

**Put down the glowing rectangle.** Thinking is hard work. Don't let the internet make it harder. Flashing pixels appeal to your primate reflexes and rob your attention. If you think you are good at multitasking, think again; science says you are fooling yourself. Worse, you are distracting your classmates with the digital equivalent of second-hand smoke. Studies have shown that retention and participation are better if you take notes by hand instead of typing. Social media can wait.

**Viewer discretion advised.** Sadly enough, the horror of war, and the treachery of subversion, are precisely what makes them politically useful. We want to understand how and why. Oncologists, likewise, need to understand cancer if they want to cure it (or learn to live with it). This will occasionally mean engaging with challenging material. Try to keep some perspective on what is also good and hopeful in any situation, even if this just means having a better understanding of root causes. If you need to excuse yourself at any point, please do not hesitate to do so discreetly.

**Food and drink.** Drinks in covered containers are OK. Please try to avoid eating, as the smells and sounds can be distracting to other students. We will take a break in the middle of class, during which you are welcome to have a snack.

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<sup>1</sup> Paul Edwards has some more great advice on how to read academic work here: <http://pne.people.si.umich.edu/PDF/howtoread.pdf>.

<sup>2</sup> See <https://catalog.gatech.edu/rules/22/>.

## Writing

**Help me help you.** It is a joy to read well written papers that advance clear, creative, or provocative arguments by students who have worked hard to master new ideas or material. It is the opposite of joy to read papers that are disorganized, formulaic, turgid, rushed, or otherwise thrown together.

- All papers should have a clear introductory section (or executive summary) that summarizes your argument—no more than one page. It is best to draft this before you start, and then rewrite it again after you finish.
- A good argument has a counterargument, maybe several. What is the alternative explanation or interpretation to the argument you are making? Who, in principle, might argue against you? What would they say? How would you know if you were right or wrong?
- A good argument also has reasons why it is better than the alternatives. Is it more logically sound? More parsimonious or satisfying? Is it better supported by the evidence? Does it better lend itself to practical application?
- Organize your argument in a clear and logical sequence. Use section headings to organize your paper. Each section of your paper should have clear opening and concluding statements. All paragraphs should have clear opening and concluding sentences.
- A great sage once said that writing is God’s way of telling you that you don’t know what you’re talking about. After you finish writing, you should a better idea of what you’re about. The corollary to this rule is that you should then go back and revise what you have written. The logic of discovery is not necessarily the best logic of presentation. Revise your paper. This should include revising your title and abstract appropriately.

**Remember George Orwell.** Please write clearly and directly.<sup>3</sup> Just because this is an academic program does not mean you should try to write like an academic. This is especially true for academics. Your parents or school-aged relatives should be able to understand what you are saying. Avoid passive tense. Spell out acronyms. Minimize jargon. Seek and destroy all extraneous adjectives and adverbs. Ask a friend to read your draft. Get help from a writing coach if you need it.<sup>4</sup> Also remember Moltke the Elder: that which is simple is also good.

**Stand on the shoulders of giants.** Your work must be original but should draw on ideas from the readings and lecture. Critically evaluate all sources. Quotations or paraphrases must be cited:

- Please use Chicago style short cites, e.g., “Posen, *Restraint*, p. 1”—for anything on the syllabus. Use Chicago style full citations for the first cite of any other material, and then use short citations for subsequent mentions.
- Please use footnotes rather than endnotes. Avoid lengthy digressions in your footnotes.
- You do *not* need to include a bibliography since you will be citing sources in footnotes.

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<sup>3</sup> If you haven’t read it yet, or you haven’t read it in a while, then please read, or reread, George Orwell, “Politics and the English Language,” *Horizon* (April 1946), <https://www.orwellfoundation.com/the-orwell-foundation/orwell/essays-and-other-works/politics-and-the-english-language/>. Note that the classic guide to writing well is William Strunk and E. B. White, *The Elements of Style*, 4th edition (Boston: Pearson, 2000). If you want something more recent, there is excellent guidance in William Brohaugh, *Write Tight: Say Exactly What You Mean with Precision and Power* (Naperville, Ill: Sourcebooks, 2007).

<sup>4</sup> There are many great resources available at <https://www.communicationcenter.gatech.edu/>.

- Try to use reputable academic, journalistic, government, or commercial sources. Consider all our sources critically. Please do not cite Wikipedia. Wikipedia is not an acceptable source. Wikimedia, however, is an excellent repository of open source public domain media.

**Remain in the light.** In your research zeal, remember that plagiarism is not only illegal, but also a dumb idea. Plagiarists will be cast into outer darkness. For all assignments, materials, and exams, you are expected to maintain the highest academic integrity. Plagiarism will be punished according to university guidelines. Please read and heed the honor code for more detail.<sup>5</sup>

**The medium is the message.** There is a correlation—although not a perfect one—between authors who try to make their paper look neat and authors who have neat papers. Here is some guidance on formatting your paper.

- Include a title page with your paper title, name, email, section (if relevant), and word-count.
- Your argument must be clearly summarized in the title of the paper. Alternately, you can phrase your title as a question that the paper will answer.
- The word limit is a limit. Your reader may elect to stop reading beyond it. Your footnotes *will* be counted as part of the word count.
- Use any editor you want, but please turn in your paper as a PDF document.
- Papers will be submitted and returned through Canvas.
- Use double-spaced, 12-point font, such as Times New Roman or similar.

## Presenting

**Death by PowerPoint.** We've all been there. Too much text. Too many bullets. Confusing graphics. Distracting graphics. Crazy animations. Speakers reading slides. And so on. Let's not go there this time. You can use slides to help make a great presentation. But if you use them, please think about slides as a complement to your presentation, not a substitute for it. Fewer words and images are usually better. Also, please send me any slides that you present for my records (.ppt or .pdf).

**Stay on Target.** Use every slide or interaction to advance the argument. Skits or humor are welcome, but make sure you make your substantive points. Mind the time. Leave room for discussion.

**Don't Panic.** Public speaking can be scary. But it's also a good life skill to learn. Presenting gets easier as you practice. It is also much easier if you know what you are talking about. Preparation enables

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<sup>5</sup> See <https://osi.gatech.edu/content/honor-code>. In the spirit of my own advice, I am borrowing the rest of the text in this footnote from the previous iteration of this syllabus by Prof. M. Kosal. The Georgia Tech Honor Code specifies: "Plagiarism' is the act of appropriating the literary composition of another, or parts of passages of his or her writings, or language or ideas of the same, and passing them off as the product of one's own mind. It involves the deliberate use of any outside source without proper acknowledgment." Plagiarism ranges from the blatant, such as purchasing a term paper or copying on an exam, to the subtle, e.g., failing to credit another author with the flow of ideas in an argument. Simply changing a few words from the writings of other authors does not alter the fact that you are essentially quoting from them and appropriating their ideas. Paraphrasing of this sort, where you use the words of another almost verbatim without acknowledging your source, is the most common form of plagiarism among students and in general. When you state another author's viewpoint, theory, or hypothesis – especially when it is original or not generally accepted – you must also include a reference to the originator. In general citations are unnecessary when the information is considered common knowledge or a matter of widespread agreement or controversy.



presentation. Be sure to practice your presentation before class. Take a deep breath before you start, and don't forget to breathe while you are speaking. Try to make eye contact with the audience. Avoid fixating on your notes or reading slides. Try not to pace around or gesticulate wildly. Speak slowly and clearly, with confidence and authority. And, smile!

**The whole is more than the sum of its parts.** For group presentations, there is a strong temptation to give every member equal time on stage. Sometimes this is OK. Often it ends up creating a fragmented presentation. It may make sense to task organize in other ways. Some students may want to specialize on other aspects of the project. The presentation should be a collective effort. All members will receive the same mark, regardless of how much time they speak. Please make the effort to ensure that the presentation is more than the sum of its parts.

**Batch processing.** You will get more feedback from the audience, and you can have more time to think about your comments, if you take audience questions in batches. Listen to three or four questions from the audience, and then reply to those that seem most relevant. This is just a suggestion. Sometimes it makes more sense to respond to a particularly urgent or interesting comment right away.

## Miscellaneous

**Late Policy.** Late assignments will be penalized half a grade per day (24 hrs from the due date). That means an A will become a B+ and a B- will become a C.

**Extensions.** Extensions may be granted, in advance, on a case-by-case basis for valid accommodations or extenuating circumstances.

**Accommodations.** If you are a student with special learning needs, please obtain an accommodations letter.<sup>6</sup> Then make an appointment with me to discuss how we can best meet your needs. If you require accommodation for religious observances, please notify me at least two weeks in advance.<sup>7</sup>

**Coronavirus, and other divine punishments.** The course will be conducted in-person, unless otherwise notified, in accordance with institute policies for mitigating Covid-19, or other disasters as appropriate.<sup>8</sup> Masks are recommended, at student discretion. Your instructor is fully vaccinated and boosted.

## Schedule

This course will meet in person every other week to accommodate the heavy reading load. An online office hour (OOH) will be offered during the off week. This is optional, unstructured discussion.

Everyone should read everything in column A in the table for each given session. Your 2-3 Page (~700 word) reflection paper is due Wednesday by 11:59pm. Upload this as text in the Canvas discussion section for that week's module.

Everyone will be assigned one week from column B and one week from column C. On your weeks, a 5 page (~1200 word) book review is due Wednesday by 11:59pm.

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<sup>6</sup> Contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>

<sup>7</sup> See <http://catalog.gatech.edu/rules/4/>

<sup>8</sup> See <https://health.gatech.edu/coronavirus/institute-operations>

Read the student book reviews before class on Friday. Also, it is highly recommended that you read student reflections as well.

Schedule

Topic	A. Required	B. Classic	C. Modern
Intro 8/25  Due 8/28: rank prefs col A & B	Syllabus  Recommended: Lindsay, Jon R., and Erik Gartzke. "Politics by Many Other Means: The Comparative Strategic Advantages of Operational Domains." <i>Journal of Strategic Studies</i> 45, no. 5 (2022): 743–76.  Recommended: Sears, Nathan Alexander. "International Politics in the Age of Existential Threats." <i>Journal of Global Security Studies</i> 6, no. 3.	Waltz, Kenneth. <i>Man, the State and War: A Theoretical Analysis</i> . With a New Preface. New York: Columbia University Press, 2001.	Roland, Alex. <i>War and Technology: A Very Short Introduction</i> . Oxford, New York: Oxford University Press, 2016.
Bargaining 9/8  Due 9/6  OOH 9/1 at 1pm (Note time this week)	Wagner, R. Harrison. <i>War and the State: The Theory of International Politics</i> . University of Michigan Press, 2010.  Fearon, James D. "Rationalist Explanations for War." <i>International Organization</i> 49, no. 3 (1995): 379–414.  Recommended: Snyder, Glenn H. "The Security Dilemma in Alliance Politics." <i>World Politics</i> 36, no. 4 (1984): 461–95.  Read student book reviews before class. Student reflections optional.	Schelling, Thomas C. <i>Arms and Influence</i> . With a New Preface and Afterword. New Haven, CT: Yale University Press, 2008.	Glaser, Charles L. <i>Rational Theory of International Politics: The Logic of Competition and Cooperation</i> . Princeton, NJ: Princeton University Press, 2010.
Institutions 9/22  Due 9/20  OOH 9/15 at 11am (back to regular time)	Deudney, Daniel H. <i>Bounding Power: Republican Security Theory from the Polis to the Global Village</i> . Princeton, NJ: Princeton University Press, 2007.  North, Douglass C. "Institutions." <i>Journal of Economic Perspectives</i> 5, no. 1 (March 1991): 97–112.  Recommended: Gorwa, Robert. "The Platform Governance Triangle: Conceptualising the Informal Regulation of Online Content." <i>Internet Policy Review</i> 8, no. 2 (2019): 1–22.	Locke, John. <i>Second Treatise of Government</i> . Edited by C.B. Macpherson. Indianapolis: Hackett, 1980.	North, Douglass C., John Joseph Wallis, and Barry R. Weingast. <i>Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History</i> . New York: Cambridge University Press, 2009.

	Read student book reviews before class. Student reflections optional.		
Land 10/6  Due 10/4  OOH 10/29	Talmadge, Caitlin. <i>The Dictator's Army: Battlefield Effectiveness in Authoritarian Regimes</i> . Ithaca, NY: Cornell University Press, 2015.  Hunzeker, Michael Allen, and Alexander Lanoszka. "Landpower and American Credibility." <i>Parameters</i> 45, no. 4 (2015): 17–26.  Recommended: Biddle, Stephen. "Rebuilding the Foundations of Offense-Defense Theory." <i>Journal of Politics</i> 63, no. 3 (2001): 741–74.  Read student book reviews before class. Student reflections optional.	Clausewitz, Carl von. <i>On War</i> . Translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.	Biddle, Stephen D. <i>Military Power: Explaining Victory and Defeat in Modern Battle</i> . Princeton, NJ: Princeton University Press, 2004.
Sea 10/20  Due 10/18  OOH 10/13	Green, Brendan Rittenhouse. <i>The Revolution That Failed: Nuclear Competition, Arms Control, and the Cold War</i> . New York: Cambridge University Press, 2020.  Caverley, Jonathan D., and Peter Dombrowski. "Cruising for a Bruising: Maritime Competition in an Anti-Access Age." <i>Security Studies</i> 29, no. 4 (August 7, 2020): 671–700.  Recommended: King, Ernest J. "The Role of Sea Power in International Security." <i>Proceedings of the Academy of Political Science</i> 21, no. 3 (1945): 79–86.  Read student book reviews before class. Student reflections optional.	Corbett, Julian Stafford. <i>Some Principles of Maritime Strategy</i> . London: Longmans, Green and Co., 1911.	Sharman, J. C. <i>Empires of the Weak: The Real Story of European Expansion and the Creation of the New World Order</i> . Princeton, NJ: Princeton University Press, 2019.
Air 11/3  Due 11/1  OOH TBD	Pape, Robert Anthony. <i>Bombing to Win: Air Power and Coercion in War</i> . Ithaca, NY: Cornell University Press, 1996.  Calcara, Antonio, Andrea Gilli, Mauro Gilli, Raffaele Marchetti, and Ivan Zaccagnini. "Why Drones Have Not Revolutionized War: The Enduring Hider-Finder Competition in Air Warfare." <i>International Security</i> 46, no. 4 (April 1, 2022): 130–71.	Haun, Phil, ed. <i>Lectures of the Air Corps Tactical School and American Strategic Bombing in World War II</i> . Lexington, Kentucky: University Press of Kentucky, 2019.	Eden, Lynn. <i>Whole World on Fire: Organizations, Knowledge, and Nuclear Weapons Devastation</i> . Ithaca, NY: Cornell University Press, 2004.

	<p>Recommended: Macdonald, Julia, and Jacquelyn Schneider. "Battlefield Responses to New Technologies: Views from the Ground on Unmanned Aircraft." <i>Security Studies</i> 28, no. 2 (2019): 216–49.</p> <p>Read student book reviews before class. Student reflections optional.</p>		
<p>Space 11/17</p> <p>Due 11/15</p> <p>OOH 11/10</p>	<p>Bowen, Bledyn E. <i>War in Space: Strategy, Spacepower, Geopolitics</i>. Edinburgh: Edinburgh University Press, 2020.</p> <p>Moltz, James Clay. "The Changing Dynamics of Twenty-First-Century Space Power." <i>Strategic Studies Quarterly</i>, no. Spring (2019): 66–94.</p> <p>Recommended: Pavur, James, and Ivan Martinovic. "Building a Launchpad for Satellite Cyber-Security Research: Lessons from 60 Years of Spaceflight." <i>Journal of Cybersecurity</i> 8, no. 1 (January 1, 2022): tyac008.</p> <p>Read student book reviews before class. Student reflections optional.</p>	<p>Mindell, David A. <i>Digital Apollo: Human and Machine in Spaceflight</i>. MIT Press, 2011.</p>	<p>Deudney, Daniel H. <i>Dark Skies: Space Expansionism, Planetary Geopolitics, and the Ends of Humanity</i>. New York: Oxford University Press, 2020.</p>
<p>Cyberspace 12/1</p> <p>Due 11/29</p> <p>OOH 11/24</p>	<p>Lonergan, Erica D., and Shawn W. Lonergan. <i>Escalation Dynamics in Cyberspace</i>. New York: Oxford University Press, 2023.</p> <p>Smith, Frank L. "Quantum Technology Hype and National Security." <i>Security Dialogue</i> 51, no. 5 (October 1, 2020): 499–516.</p> <p>Horowitz, Michael C. "Artificial Intelligence, International Competition, and the Balance of Power." <i>Texas National Security Review</i> 1, no. 3 (May 2018): 37–57.</p> <p>Read student book reviews before class. Student reflections optional.</p>	<p>Sun Tzu. <i>The Art of War</i>. Translated by Michael Nylan. New York: W. W. Norton &amp; Co., 2020.</p>	<p>Chesney, Robert, and Max Smeets, eds. <i>Deter, Disrupt, Or Deceive: Assessing Cyber Conflict as an Intelligence Contest</i>. Washington, DC: Georgetown University Press, 2023.</p>