

**POLITICAL SCIENCE 143: INTERNATIONAL CONFLICT: CYBER, SPACE, UAVs [FALL 2021]
(SEPTEMBER 20 -- DECEMBER 11), MONDAYS 6-8:50PM, ONLINE (ZOOM)**

Instructor: **Erik Gartzke** (Professor) Email: egartzke@ucsd.edu

NOTE: When contacting any instructor, please identify the course (and section if appropriate). We are usually teaching more than one course at a time. Making it clear which course saves time!

- Course website [Canvas, use UCSD SSO to access]: <https://canvas.ucsd.edu/courses/30464>
 - Lecture 6-8:50PM Mondays [Zoom w/ UCSD SSO]: [REDACTED]
“Office” hours [Zoom, need UCSD Account]: Tuesday 4-5PM or by appointment.
(Use the following link [REDACTED])
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Teaching Assistants:

Duong Pham (Email: dtp002@ucsd.edu)
Office hours: Wed 1-2PM or by appointment
In-person (SSB 328), Zoom: 770 560 9817

Fang Chi (Email: c1fang@ucsd.edu)
Thurs 1:30-2:30PM or by appointment
In-person (SSB 443), Zoom 464 433 8991

For your convenience, here is a link to register for a meeting with the GTAs:

<https://calendar.google.com/calendar/u/0/selfsched?sstoken=UU80ZmFuZ1dMNGtqfGRlZmF1bHR8ZTcyNjQwZjA2ZTliYTYxMGI1M2M5YzA2NjNINDAzZDk>

Unprecedented circumstances necessitate many changes to this course and my teaching style that will no doubt generate mistakes on my part and confusion for all of you. I apologize in advance. You deserve the best possible education! The instruction team for POL1143 is going to try to ensure you receive all possible assistance to make you erudite and wise beyond your years!

Please be patient with me and I will try to do the same with each of you. If you have questions or concerns, please contact your GTA first. If this does not work or the situation is not satisfactorily resolved, please send me an email and I will try to address your concerns as soon as possible.

I have and will be making a number of changes to assignments and grading procedures that I hope will at least partially compensate students for a number of disruptions in your normal lives. Some appear below. Others will take some more doing or refinements. Again, please have faith in me and your GTA. Also read this syllabus carefully, as some of the opportunities available to you require decisions on your part. In particular, grading options have varied from quarter to quarter.

Finally, health (physical, mental, social) is always important, but especially now. Don't suffer in silence. A variety of resources on and off campus are available to help you recover, or to remain healthy. I list some in the syllabus. Others are available on the [UCSD website](#). If you have any questions, please ask me or your GTA. We will attempt to assist you or refer you to those who can.

Course Description:

An increasing range of advanced technologies and emerging global conditions are combining to change international affairs. Technological factors like cyber, UAVs and WMD proliferation make it possible for nations and non-state actors to interact in ways not previously contemplated. Strategic and tactical doctrines like cross-domain deterrence, gray zone conflict and “escalate to de-escalate” make security and strategy ever more complex. Eventually, war may be conducted autonomously, by robot combatants, rather than by human beings. Artificial Intelligence (AI) generally is altering a variety of tasks that previously were the exclusive domain of human beings. This course is an attempt to figure some of this stuff out. It focuses on the politics of these modes of conflict, rather than on technology or strategy *per se*. Each week will cover one technology or strategy in several readings. Students are encouraged to bring their own experiences to class.

A NOTE ON GRADING/ASSIGNMENTS: I generally do not grant extensions or incompletes. There is a high degree of flexibility built into the course; students have considerable discretion in which assignments they complete, how many (up to a point) and when. You can work at your own pace. But you must respect the deadlines listed for assignments. Late assignments will receive an automatic grade of zero (0). There are no exceptions to this policy. You can overcome this in three ways. First, turn assignments in on time. Second, a zero grade for an assignment is superseded by a higher grade on other assignments. You may miss up to 40% of assignments for any reason, without penalty, no questions asked. You **MUST** submit 60% of assignments to pass the course. Even if submitted late, they will count toward the required 60% of assignments to pass the class.

This may sound confusing -- or at least unfamiliar -- but it is very simple. The fifteen assignments listed in this syllabus represent the total potential work on which your grade in the course may be based. Weights (percentages) listed next to assignments are proportional in relation to that total, not necessarily to the assignments you may do in your particular case:

- * There are ten short essay questions listed in the course, one for each week.
- * There are five sets of videos for you to can provide commentaries, one every other week.
- * You **MUST** complete six (6) short essays and three (3) video commentaries.
- * You **MAY** do more of the assignments if you wish. Your final grade will be based on the average of your best six essay grades and three short commentaries, plus the final, if submitted.
- * The final exam in the course is **OPTIONAL**. If you are happy with your grade based on the essays and commentaries, you do not need to take the final exam. Your course grade will be based on the work you submit, subject to the minimum requirement of six short essays and three commentaries, all submitted on time.
- * Late work will not be graded but can be counted towards the minimum requirement.

If you are unable to complete assignments in a given week, no problem. That is already factored into the course. If you run into trouble that consumes more than four weeks -- in a ten week course -- this is not going to work out in most cases. You must be sufficiently committed to the course to do 60% of the work. Otherwise, don't take the course. Students with difficulties lasting more than four weeks that cannot be anticipated, or avoided, will be referred to their college deans to decide.

These arrangements give students, in advance, the maximum discretion I can provide. You can miss 40% of assignments altogether and potentially still do well in the course. But you cannot submit assignments late -- they will receive a zero (0) -- and you cannot fail to submit 60% of the work. Failing to submit the required number and type of assignments will result in an "F" in the course. You can also fail the course by submitting too many assignments after required deadlines.

Course Requirements:

- **Short Essays on Discussion Questions (listed below lectures in "Topic/Assignment" section) (5% x 6 = 30% of course grade):** Each student will prepare a short essay of NO MORE THAN ONE PAGE reacting to the discussion question for a given lecture period. **Be analytical:** This means making a logical or empirical point, not just appreciating things. Answer the question, explicitly, briefly, and then provide a defense of your position. Points will be given for taking a stand and also for the (logical/empirical) rigor of your argument. **Be "punchy", impactful:** You only have one page to make your case. Don't waste words!
- **Commentaries on Video Documentaries (every other week) (10% x 3 = 30% of course grade):** Each student will write a short commentary of NO MORE THAN TWO PAGES, reacting to one or more of the video documentaries in the "TOPIC/ASSIGNMENT" section in the syllabus. ***Begin your essay with your research question*** (EXAMPLES: *Why did the film maker come to the conclusion they did [and not another conclusion]?, Why did they not consider or emphasize another factor [x] that may have contributed to the process under study in the documentary? How did luck, planning, human behavior or other factors shape given outcomes in the documentary and how might these be influenced by policy?)* You are expected to analyze/criticize the subject/substance of the documentary. DO NOT provide a summary. I already know what the documentaries are about. Tell me what they got wrong, could have done better, missed, failed to emphasize etc. Alternately, you are encouraged to relate the subject of the documentary to other questions/issues in foreign policy. Focus on the politics/policy in each documentary. Are there errors? In what ways is the documentary misleading? What have you gleaned from the readings, for example, that could allow you to more critically assess the claims presented in the documentary? What policy implications suggested by the documentary? Do you accept these? Why or why not? **Do _not_ provide a critique of the film making. This is not a literature/drama course.**
- **Final Exam (40% of course grade):** Each student will prepare an essay of NO MORE THAN TWO PAGES, based on a choice of questions. This is a "take home" exam. The questions will be given out a week prior. The exam is due at the time/day of the final exam (Monday, December 6 at 9:59PM). A quality essay will integrate all relevant materials from the course in preparing a concise but persuasive analytical answer to questions posed.
- **If you are NOT taking this course for a letter grade (i.e., P/NP, etc): you will NOT BE REQUIRED TO SUBMIT commentaries or a Final Exam, just six short essays. P/NP evaluation depends only on completing the six short essays. This option is recommended.**

Note: Student name, number, contact information, course *and page numbers* are required on all assignments. All assignments are to be double spaced, with standard formatting (8.5 x 11 paper, 1 inch margins, etc.) in a readable font (11 or 12 point). Grammar and spelling are not graded per se, but legibility is a necessary condition for coherent, persuasive prose. Proofread all of your work!!

Required Readings:

There is no textbook for this course. We will be reading eclectically, from articles and other sources, as we find materials that are useful or interesting. You are welcome to suggest readings. This is a new course on a cutting-edge subject. Little is certain, except that the future depends on

how nations (and you) absorb and react to evolving understandings of new modes of conflict.

Students are also encouraged to familiarize themselves with major periodicals with a focus on international relations/foreign policy and follow the international section of major newspapers:

- Financial Times (<http://news.ft.com/world>)
- The New York Times (<http://www.nytimes.com/pages/world/index.html>)
- Washington Post (<http://www.washingtonpost.com/wp-dyn/content/world>)
- Foreign Affairs (<http://www.foreignaffairs.org>)
- Foreign Policy in Focus (<http://www.fpif.org/>)
- The National Interest (<http://www.nationalinterest.org>)
- Foreign Policy Association (<http://www.fpa.org/>)
- Council on Foreign Relations (<http://www.cfr.org/>)

DATE

TOPIC/ASSIGNMENT

WEEK 1 (Monday, September 27): Fundamental Principles of International Security --
Introduction, syllabus and background: What is security?

(Discussion: Is it better to be safe through power or accommodation?)

- Baldwin, David A. (1997) "The Concept of Security." *Review of International Studies* 23: 5-26.
- Schelling, Thomas C. (1966) *Arms and Influence*, New Haven, CT: Yale University Press. Chapters 1-3.

WEEK 2 (Monday, October 4): What is War?

(Discussion: Can one ever really "win" a war? How?)

- Blainey, Geoffrey (1988) *The Causes of War*, New York: Free Press, Chapters 8-9.
- Fearon, James D. (1995) "Rationalist Explanations for War." *International Organization* 49(3): 379-414.

WATCH: "The United States of Secrets" [Part I]

(<https://www.pbs.org/wgbh/frontline/film/united-states-of-secrets/>)

WEEK 3 (Monday, October 11): Dealing with Technological Change in Military Affairs --
Technology, Strategy and War

(Discussion: What is 'technological determinism' and what should we do about it?)

- Gray, Colin S. "Weapons for Strategic Effect: How Important is Technology?" Center for Strategy and Technology, Air War College, Occasional Paper No. 21.
- Seligmann, Matthew (2010) "Intelligence Information and the 1909 Naval Scare: The Secret Foundations of a Public Panic." *War in History* 17(1): 37-59.

[Read *one* (1) of the three articles below]:

- Schelling, Thomas C. (2009) "A World without Nuclear Weapons?" *Daedalus* 138(4):124-129.
- Fuhrmann, Matthew and Sarah E. Kreps (2010) "Targeting Nuclear Programs in War and Peace: A Quantitative Empirical Analysis, 1941-2000" *Journal of Conflict Resolution* 54(6): 831-859.

- Stoll, Richard J. (2017) "To Arms, To Arms: What Do We Know About Arms Races?" *Oxford Research Encyclopedia of Politics*
<http://politics.oxfordre.com/view/10.1093/acrefore>

WEEK 4 (Monday, October 18): Dealing with Technological Change in Military Affairs --"Old" Domains: Land, Sea, Air

(Discussion: Will old domains fade away or be augmented by new domains?)

- Biddle, Stephen (1998) "The Past as Prologue: Assessing Theories of Future Warfare." *Security Studies* 8(1):1-74.
- Krepinevich, Andrew F. (1994) "Cavalry to Computer: The Pattern of Military Revolutions." *The National Interest* September: 1-27.
<https://nationalinterest.org/print/article/cavalry-to-computer-the-pattern-of-military-revolutions-848>.

[Read *one* (1) of the three articles below]:

- Sechser, Todd S., and Elizabeth N. Saunders (2010) "The Army You Have: The Determinants of Military Mechanization, 1979-2001." *International Studies Quarterly* 54(2): 481-511.
- Caverley, Jonathan D., and Todd S. Sechser (2017) "Military Technology and the Duration of Civil Conflict." *International Studies Quarterly* 61(3):704-720.
- Lyall, Jason, and Isaiah Wilson III (2010) "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars." *International Organization* 63(1): 67-106.

[Read *one* (1) of the two articles below]:

- Gartzke, Erik, and Jon Lindsay (2020). "The Influence of Seapower on Politics: Domain- and Platform-Specific Attributes of Material Capabilities." *Security Studies*. Forthcoming.
- Post, Abigail (2018) "Flying to Fail: Costly Signals and Air Power in Crisis Bargaining." *Journal of Conflict Resolution*

WATCH: "The United States of Secrets" [Part II]

(<https://www.pbs.org/wgbh/frontline/film/united-states-of-secrets/#video-2>)

WEEK 5 (Monday, October 25): New Domains -- Cyber

(Discussion: If information is power, how does this relate to "old" notions of war?)

- Libicki, Martin C. (2012). "Cyberspace Is Not a Warfighting Domain." *I/S: A Journal of Law and Policy* 8(2): 321-336.
- Valeriano, Brandon, and Ryan Maness (2012). "The Fog of Cyberwar: Why the Threat Doesn't Live Up to the Hype." *Foreign Affairs*
<https://www.foreignaffairs.com/articles/2012-11-21/fog-cyberwar>.

[Read *one* (1) of the three articles below]:

- Gartzke, Erik (2013). "The Myth of Cyberwar: Bringing War in Cyberspace Back Down to Earth." *International Security* 38(2): 41-73.
- Gartzke, Erik, and Jon Lindsay (2017) "Thermonuclear Cyberwar." *Journal of Cybersecurity*. 3(1): 37-48.
- Gartzke, Erik, and Jon Lindsay (2015) "Weaving Tangled Webs: Offense, Defense, and Deception in Cyberspace." *Security Studies* 24(2): 316-348.

WEEK 6 (Monday, November 1): *New Domains -- Space*

(Discussion: Why has space yet to be (thoroughly) weaponized? Will this change?)

- Bahney, Benjamin, Jonathan Pearl, and Michael Markey (2018) “Anti-Satellite Weapons and the Growing Instability of Deterrence,” in Jon Lindsay and Erik Gartzke *Cross-Domain Deterrence: Strategy in an Era of Complexity* Oxford: Oxford University Press.
- Early, Bryan R. and Erik Gartzke (2020) “Spying from Space: Reconnaissance Satellites and Interstate Disputes.” Typescript.
- DeBlois, Bruce M., Richard L. Garwin, R. Scott Kemp, and Jeremy C. Marwell (2004) “Space Weapons: Crossing the U.S. Rubicon.” *International Security* 29(2): 50-84.

WATCH: “War in Space - The Next Battlefield”

(<https://www.youtube.com/watch?v=CqtL1YIsuFM>) and/or “Cyberwar!”

(<https://www.youtube.com/watch?v=UaZw9mQu7xg>)

WEEK 7 (Monday, November 8): *Strategy in the 21st Century -- Cross- or Multi-Domain Deterrence/Conflict*

(Discussion: Why choose a given domain? When should actors cross domains?)

- Adamsky, Dmitry. (2015). “Cross-Domain Coercion: The Current Russian Art of Strategy.” *Institut Francais des Relations Internationales*
<https://www.ifri.org/sites/default/files/atoms/files/pp54adamsky.pdf>
- Lindsay, Jon and Erik Gartzke (2018) “The Analytic Potential of Cross-Domain Deterrence.” Jon Lindsay and Erik Gartzke, eds. *Cross-Domain Deterrence: Strategy in an Era of Complexity*. Oxford: Oxford University Press.
- Manzo, Vincent (2012) “Deterrence and Escalation in Cross-domain Operations: Where Do Space and Cyberspace Fit?” *Joint Forces Quarterly* 66(3): 8-14.

WEEK 8 (Monday, November 15): *Strategy in the 21st Century -- Gray Zone Conflict*

(Discussion: How much violence is "optimal"? Why?)

- Votel, Joseph L., Charles T. Cleveland, Charles T. Connett and Will Irwin. (2016) “Unconventional Warfare in the Gray Zone.” *Joint Forces Quarterly* 80(1): 101-109
- Barno, David and Nora Bensahel (2015). “Fighting and Winning in the ‘Gray Zone.’” *War on the Rocks*. May 19 <https://warontherocks.com/2015/05/fighting-and-winning-in-the-gray-zone/>
- Gannon, J. Andres and Erik Gartzke, Jon R. Lindsay and Peter Schram (2020) “After Deterrence: Explaining Conflict Short of War.” Typescript.

WATCH: “South China Sea” (https://www.youtube.com/watch?v=ubERb4ts_tc)

“The Battle for Ukraine” (<https://www.pbs.org/wgbh/frontline/film/battle-for-ukraine/>)

WEEK 9 (Monday, November 22): *New Military Technologies -- UAVs/Drones and Military Automation*

(Discussion: Are war robots "good" or "evil"? Why? Take a stand.)

- Singer, P.W. (2009) “Robots at War: The New Battlefield.” *The Wilson Quarterly*

- Gartzke, Erik (2019). “Blood and Robots: How Remotely Piloted Vehicles and Related Technologies Affect the Politics of Violence.” 2019. *Journal of Strategic Studies*, 1-31. [Read *one* (1) of the three articles below]:
- Walsh, James and Erik Gartzke (2020). “Drones and their Drawbacks: The Effects of RPVs on Escalation and Instability in Pakistan.” Typescript.
- Bendett, Samuel (2017) “Get Ready, NATO: Russia’s New Killer Robots Are Nearly Ready for War.” *National Interest* <https://nationalinterest.org/blog/the-buzz/russias-new-killer-robots-are-nearly-ready-war-19698>.
- Horowitz, Michael C., Sarah E. Kreps and Matthew Fuhrmann (2016) “Separating Fact from Fiction in the Debate over Drone Proliferation.” *International Security* 41(2): 7-42.

WATCH: “In the Age of AI” (<https://www.pbs.org/wgbh/frontline/film/in-the-age-of-ai/>) and/or **“Targeting Yemen”** (<https://www.pbs.org/wgbh/frontline/film/targeting-yemen/>) and/or **“The Rise of the Drones”** (<https://www.youtube.com/watch?v=91BLKMCgvBU>)

WEEK 10 (Monday, November 29): New Military Technologies -- AI and other developments
(Discussion: Why can't AI tell us how useful AI will be in future conflicts?)

- Lindsay, Jon (2020) “Demystifying the Quantum Threat: Infrastructure, Implementation, and Intelligence Advantage.” *Security Studies* 29(2):335-361.
- Horowitz, Michael C. (2018) “Artificial Intelligence, International Competition, and the Balance of Power.” *Texas National Security Review* 1(3).

[Read *one* (1) of the three articles below]:

- Kania, Elsa (2017) “Battlefield Singularity: Artificial Intelligence, Military Revolution, and China’s Future Military Power.” Center for New American Security, CNAS Report. Washington, DC. <https://www.cnas.org/publications/reports/battlefield-singularity-artificial-intelligence-military-revolution-and-chinas-future-military-power>.
- Hoadley, Daniel and Nathan Lucas (2018) “Artificial Intelligence and National Security.” *Congressional Research Service* CRS Report R45178.
- Jenks, Chris (2017) “The Gathering Swarm: The Path to Increasingly Autonomous Weapons Systems.” *Journal of Jurimetrics* 57(2): 341-359.

***** FINAL EXAM due Monday, December 6 at 9:59PM (Submit on Canvas) *****

Intellectual Property

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You may not reproduce, distribute or display (post/upload) lecture notes or recordings or course materials in any other way — whether or not a fee is charged — without my express prior written consent. You also may not allow others to do so.

If you do so, you may be subject to student conduct proceedings under the UC San Diego Student Code of Conduct.

Similarly, you own the copyright in your original papers and exam essays. If I am interested in posting your answers or papers on the course web site, I will ask for your written permission.

Additional information/resources

Academic Integrity: Submitting any assignment in this course implies that you agree to UCSD’s policies as listed in the [Principles of Community](#) and the [Student Code of Conduct](#). Academic misconduct includes (but is not limited to): using another person’s words as your own, asking someone else to write any part of an assignment you submit as your own, failing to cite material from another source, editing/rephrasing someone else’s words as your own.

The [Policy on Integrity of Scholarship](#) lists some of the standards by which you are expected to complete assignments in this course. Students needing assistance may consult with the instructor or the teaching assistants. You are encouraged to use authorized UCSD [writing resources](#), such as the [Writing Hub](#). *No other person or resource may be used to assist you in writing any assignment without express permission from the instructor.* Exceptions will be made for a disability or other personal need. Please consult with the instructor if you are unclear about this policy or believe you need the assistance of other persons or online resources. You may not use a tutor. You may not consult or collaborate with other students for writing assignments. You may not refer to online grammar or translation sources such as Google Translate or Grammarly (grammar is not graded).

Student Standards:

- **Plagiarism/Cheating:** You are encouraged to study and learn together. All assignments submitted for a grade must be the ***sole product*** of the person submitting the work. Tests or assignments that are suspected of containing materials that are not the student’s work or not properly referenced/cited will be referred to the academic integrity office. If you have ***any*** questions about what constitutes a violation of academic integrity, please refer to the University’s guidelines ([Excel with integrity](#)) and consult with your TA or myself.

- **Disabilities/life issues:** It is your responsibility to apprise your TA or myself of factors that may interfere with your performance in class *well in advance of scheduled due dates for assignments*. Appropriate measures will be taken in accordance with UCSD policies.
- **Grading/appeals:** All attempts to discuss grading decisions must be made in writing.

Students with Disabilities

Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (<https://osd.ucsd.edu/>). Students are required to discuss accommodation arrangements with instructors and OSD liaisons in the department **well in advance** of any exams or assignments. The OSD Liaison for the Department of Political Science is Joanna Peralta; please connect with her via the [Virtual Advising Center](#) as soon as possible.

Academic Advising

Students who have questions pertaining to Political Science academic advising are asked to reach out the Department's Undergraduate Advisor, Natalie Ikker, who can be reached via the [Virtual Advising Center](#). Academic advising questions include (but not limited to): add/drop deadlines, course enrollment policies, planning major and minor requirements, quarter-by-quarter plans, department petitions and paperwork, and referrals to campus and student support services.

Inclusive Classroom Statement

The TA(s) and I are fully committed to creating a learning environment that supports diversity of thought, perspectives, experiences, and identities. We urge each of you to contribute your unique perspectives to discussions of course questions, themes, and materials so that we can learn from them, and from each other. If you should ever feel excluded, or unable to fully participate in class for any reason, please let me know, or you may also submit anonymous written feedback to the Department of Political Science's Undergraduate Advisor, [Natalie Ikker](#), Natalie will bring these anonymous comments to my attention. Additional resources to support equity, diversity, and inclusion in our classroom, and beyond, may be found here: Office of Equity, Diversity, and Inclusion: 858.822.3542 | diversity@ucsd.edu | <https://diversity.ucsd.edu/>
<https://students.ucsd.edu/student-life/diversity/index.html>
<https://regents.universityofcalifornia.edu/governance/policies/4400.html>