

POLS 2450

NUCLEAR SECURITY

Wednesdays 4:00pm-6:30pm in ARJ 143

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Link to submit weekly lecture questions: <https://forms.gle/uAobQJ2qNKbQrekZ6>

COURSE DESCRIPTION

The development of nuclear weapons was a watershed moment in world history. For the first time, states were able to destroy cities and decimate their adversaries virtually instantaneously from across the globe. Consequently, these weapons – and the advent of the nuclear age – fundamentally reshaped the strategies by which states provide for their own security, as well as basic notions of international relations and interstate diplomacy.

This course introduces students to core issues in the study of nuclear security and nuclear strategy. It begins with the history and development of nuclear weapons, focusing on the American and Soviet experiences and the science underlying fission and fusion bombs. Then, it examines the international relations concepts that these weapons upended, including the causes and dynamics of war and the ability to coerce and deter one's adversaries. From here, the course turns to important topics including nuclear accidents, nuclear terrorism, strategies of counter-proliferation, and the experiences of nuclear-aspirants – both successful and unsuccessful – including Iran, North Korea, India, Pakistan, and Iraq. Finally, the course ends by examining modern issues in the study of nuclear politics like the role of cyber operations, the quest for worldwide disarmament, and present-day relations between nuclear powers.

READINGS

Students are not required to purchase any books or textbooks for this course. Instead, readings will be available either online, through the library's website, or via HuskyCT. More specifically, journal articles can be found through Google Scholar or the library's website, while readings available on Husky CT will be denoted with an asterisk (below).

Students are expected to complete each week's reading prior to attending class. Lectures will not reiterate the reading material but will instead build upon it, and classes will tend

to be heavily discussion-based. It is therefore imperative to come to class prepared and with questions.

COURSE ASSIGNMENTS

There are four grading components to this course:

1. Midterm Exam – 30%

The closed-book midterm exam will be administered in class on Wednesday, March 12th. Students can expect a mixture of short-answer and essay questions.

2. Policy Memo – 20%

Students will submit a policy memo that proposes specific policy recommendations to address a pressing challenge to international security. The memos should be written to the United States government. Successful memos will clearly ground their policy recommendations in both theory and case-specific information, drawing heavily from course material and recent events. We will focus on how to write effective memos in class. Memos should be double-spaced, in Times New Roman, size 12 font, with one inch margins.

Topics for the policy memo will be distributed on Wednesday, March 26th. Memos are due on Sunday, April 13th, by midnight.

3. Final Exam – 30%

The cumulative, closed-book final exam will be administered on the date and time assigned by the registrar.

4. Participation – 20%

Participation is critical both to the success of this course and to your individual learning. Students are expected to come to class prepared, having completed the readings for that day, and ready to engage with the material. Students may meet with us throughout the course to assess their participation grades.

Participation is assessed via questions about the lectures and reading submitted each week. These will be answered during class. Questions can be requests for clarification or elaboration, or one may ask for further discussion of an idea or area of interest concerning the topic of the week.

Questions must be submitted before class each week using the following link: <https://forms.gle/uAobQJ2qNKbQrekZ6>

Otherwise, all students are expected to act in accordance with the [Student Conduct Code](#) as well as the [Guidelines for Academic Integrity](#) at the University of Connecticut.

DEADLINES

In the interest of fairness to all students, exceptions to these rules will only be granted in the case of incapacitating illness or significant personal or family emergencies. If such a situation occurs, student should reach out to me as early as possible to discuss alternative arrangements. Extensions for illnesses will require documentation from a physician, and personal/family emergencies will require students to consult the relevant administration. Extensions for other reasons will not be granted.

COMMUNICATION POLICY

The best way to contact us is via email. We will try to respond to all emails within 24 hours, but do not expect a reply within 12 hours or outside of normal business hours. Therefore, if you have questions leading up to an exam or assignment deadline, make sure to reach out well in advance.

STUDENTS WITH DISABILITIES

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020, or <http://csd.uconn.edu>.

GRADES

The following grading scheme will be used throughout the course:

<i>Letter Grade</i>	<i>Lower Bound</i>	<i>Upper Bound</i>
A	94	100
A-	90	93
B+	87	89
B	84	86
B-	80	83
C+	77	79
C	74	76
C-	70	73
D+	67	69
D	64	66
D-	60	63

In the event that a student wishes to dispute his or her grade on an assignment, the following procedure may be used. First, students must wait at least 48 hours after the assignment has been handed back. Second, students can email the teaching assistant to set up an appointment. This email should include a separate, typed summary of why they believe the grade is unfair. After meeting to discuss the assignment, the TA will reevaluate the grade in consultation with the professors. However, revised grades may be higher or lower than the original, and this new grade will be final.

Class 1, January 22. Introduction.

Class 2, January 29. Nuclear Weapons, Theories of International Politics, and the Causes of War.

- Walt, Stephen M. "International Relations: One World, Many Theories." *Foreign Policy* (1998): 29-46.
- Levy, Jack S. "The causes of war and the conditions of peace." *Annual Review of Political Science* 1.1 (1998): 139-165. *Only pages 143-162.*

Class 3, February 5. Film: Oppenheimer.

- In lieu of our normal class meeting, we will watch this film together at 7:15pm in SHH101.

Class 4, February 12. Nuclear Science and the US Bomb.

- A Primer on Fissile Materials and Nuclear Weapon Design by Owen R. Cote, Jr., available at: <https://www.pbs.org/wgbh/pages/frontline/shows/nukes/readings/appendixb.html>
- Chang, Kenneth. "Scientists Achieve Nuclear Fusion Breakthrough With Blast of 192 Lasers." *New York Times*, December 13, 2021. <https://www.nytimes.com/2022/12/13/science/nuclear-fusion-energy-breakthrough.html>
- Morton, Louis. "The decision to use the atomic bomb." US Army, Center of Military History, 70.7-23 (1960). *Selected pages.*

Class 5, February 19. The Chinese and Soviet Bombs, and Nuclear Strategy.

- Holloway, David. "Entering the Nuclear Arms Race: The Soviet Decision to Build the Atomic Bomb, 1939-45." *Social Studies of Science* 11.2 (1981): 159-197. *Selected pages.*

- Reed, Thomas C. and Danny B Stillman. “China Breaks the European Cartel.”
- Kaplan, Fred. *The Wizards of Armageddon*. Stanford University Press, 1991. *Selected pages*.

Class 6, February 26. Nuclear Safety, Nuclear Accidents, Nuclear Crises.

- Sagan, Scott. “The Limitation of Safety.” <http://www.mwftr.com/CS2/The%20limitation%20of%20Safety-Chapter%201.pdf>
- Neustadt, Richard, “Afterword” in Robert F. Kennedy, *Thirteen days: A memoir of the Cuban missile crisis*. WW Norton & Company, 2011.

Class 7, March 5. Film: Crimson Tide.

- Students will watch the movie at home and come to class for a discussion. Please submit questions as usual.

Class 8, March 12. In-class midterm exam.

Class 9, March 26. Britain, France, and China; Writing a Policy Memo.

- Goldstein, Avery. *Deterrence and Security in the 21st Century: China, Britain, France and the Enduring Legacy of the Nuclear Revolution* (Stanford: Stanford University Press, 2002). *Pages 139-216*.

Class 10, April 2. Nuclear Disarmament.

- Francis J. Gavin, “Strategies of Inhibition: US Grand Strategy, the Nuclear Revolution, and Nonproliferation,” *International Security*, vol. 40, no. 1 (Summer 2015): 9–46. *Selected pages*.
- Nicholas L. Miller, “U.S. Nonproliferation Policy is an Invisible Success Story,” *Washington Post*. *Washington Post* Monkey Cage, October 16, 2014. <https://www.washingtonpost.com/news/monkey-cage/wp/2014/10/16/u-s-nonproliferation-policy-is-an-invisible-success-story>
- Shultz, George, William Perry, Henry Kissinger, and Sam Nunn, “A World Free of Nuclear Weapons,” *Wall Street Journal*, January 4, 2007.
- Glaser, Charles L, “The Flawed Case for Nuclear Disarmament,” *Survival* , vol. 40, no. 1 (1998): 112–128.

Class 11, April 9. Nuclear Energy and International Law; North Korea.

- John P. Holdren, “Nuclear Power and Nuclear Weapons: The Connection is Dangerous,” *Bulletin of the Atomic Scientists*, 39.1 (1983): 40–45
- Spinrad, Bernard I., “Nuclear Power and Nuclear Weapons: The Connection is Tenuous,” *Bulletin of the Atomic Scientists*, 39.2 (1983): 42–47.
- 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.
Selected pages.
- Narang, Vipin and Ankit Panda, “North Korea is a Nuclear Power. Get Used to It.” *New York Times*, 12 June 2018. <https://www.nytimes.com/2018/06/12/opinion/trump-kim-summit-denuclearization-north-korea.html>

Class 12, April 16. Iran; Nuclear Terrorism.

- Mark Dubowitz, “Assessing the Iran Deal,” Congressional Testimony, April 5, 2017.
- Miller, Nicholas L. and Or Rabinowitz, “Why the Iran Deal is a Logical Extension of U.S. Nonproliferation Policy,” *Washington Post* Monkey Cage, April 21, 2015. <https://www.washingtonpost.com/news/monkey-cage/wp/2015/04/21/why-the-iran-deal-is-a-logical-extension-of-u-s-nonproliferation-policy/>
- Schelling, Thomas, “Whatever happened to nuclear terrorism?” <https://web.archive.org/web/20130425073515/cpost.uchicago.edu/blog/2011/09/06/thomas-c-schelling-whatever-happened-to-nuclear-terrorism/>
- Bunn, Matthew, “The risk of nuclear terrorism – and next steps to reduce the danger.” Testimony to the Committee on Homeland Security and Governmental Affairs, United States Senate. <https://www.belfercenter.org/sites/default/files/files/publication/bunn-nuclear-terror-risk-test-08.pdf>

Class 13, April 23. Film: Dirty War.

- Students will watch the movie at home and come to class for a discussion. Please submit questions as usual.

Class 14, April 30. In-class Simulation: Nuclear War.

- No readings or questions this week. Please come to class on time so we can get started right away.