

POL471N/571N: Politics of WMDs

3 credit hours

Mondays/Wednesdays 1:15PM-2:35PM

Harrison 109

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Office Hours:

T & Th: 1:30-3:30 PM or by
appointment via Calendly

Course Description:

Weapons of mass destruction (WMDs) consist of not only nuclear weapons but also biological, chemical, ballistic missiles, and other conventional weapons that can cause great damage and harm to populations, structures, and the environment. As the Russian Invasion continues and strategic nuclear weapons are now situated in Belarus, questions of a potential nuclear conflict and proliferation concerns have again risen to the top of the global agenda. Politics and policy around WMDs are complex, and these weapons are not only a source of insecurity but also a focal point for international cooperation. This course explores the practical, scientific, political, and economic impacts of WMD proliferation and use, focusing on three key questions: How have the development and proliferation of WMDs changed since the end of the Cold War? How has the post-9/11 environment impacted the political agenda around WMD production and proliferation? In what ways have these devastating devices spurred global cooperation, created new international regimes, and impacted discussion of human rights and human security? Our course will explore and engage with IR theories on WMD proliferation, discuss international law and global governance, explore the issue from a theoretical perspective, study the political economic aspects of WMDs, and explore the intersection of national security and domestic policy in this critical issue area.

Department of Political Science Learning Objectives

Our majors will be able to:

1. Define and explain political science concepts, theories, and approaches.
2. Demonstrate skill in evidence-based reasoning from identifying the appropriate data or evidence necessary to construct a convincing argument to constructing and communicating that argument.
3. Identify the appropriate methodology, design and analysis for a given problem and understand the ethical components of research choices.
4. Apply political science knowledge to contemporary political issues and problems and be able to identify and evaluate alternative political science-based solutions.
5. Formulate, propose, and advocate possibilities for positive change in democratic society as engaged and informed citizens.

Course Objectives:

- Students will become fluent in and develop a strong understanding of the various theories and frameworks that seek to understand what motivates countries to develop WMDs or restrain from doing so.
- Students will develop a general understanding of the principles of the WMDs studied in the class (in other words, students should understand the basic differences in nuclear, chemical, and biological WMDs).
- Students will develop an understanding of global mechanisms of cooperation around WMDs and the impact of international law on the development of WMDs.
- Students will learn about critical cases in understanding WMD proliferation globally and seek to understand the policy challenges in doing so.
- Students will develop a research product that engages students with the theories/frameworks/ideas discussed in the course using appropriate academic citations.

Required Textbook & Materials:

- Mark Wolverton (2022). *Nuclear Weapons*. Cambridge: MIT Press. ISBN: 978-0262543316
- Vipin Narang (2022). *Seeking the Bomb: Strategies of Nuclear Proliferation*. Princeton University Press.
- ICON Simulation Pass, \$13 (I'll provide more details after the course begins)

Course Format

As you review the syllabus, there is a considerable amount of reading. However, it is not expected that students will read *each and everyone word or page* so please do not panic! :)

We will “divide and conquer” the reading as a class through presentations, discussions, lectures, and debates. As such, the class will consist of Lectures, Presentations on readings, Discussions and debates, and in-class Activities; you can find these indicators (L, P D, and A) in the syllabus, which gives you an idea of how the class will be run. On some days I may lecture the entire class, but on most days there will be a combination of activities. On days where students are presenting, others in the class will be tasked with providing short summaries (“cheat sheets”) on the readings to share with your classmates. You will be evaluated on the quality of your participation, so it is expected that students come prepared each session.

Course Assessments

Capstones are courses that allow students to draw on their knowledge they have generated in the political science courses, especially those on diplomacy, global governance, international law, world politics, and more. Capstones in this professor’s estimation should provide students with the ability *to apply* knowledge that they have acquired through **traditional research products** (*research proposal*), **co-teaching and learning** (*discussion leader and presenting to your peers, online simulation*), **sharing research findings and analysis** (*class presentations*), and **original research and analysis** (*assessing risk paper and research proposal*):

- **Attendance and Class Participation** (30%):
 - **Attendance** (5%): *Attendance is required.*
 - **In-Class Activities, Presentations, Discussions** (25%): Students will engage in class activities that will be graded along with presentations on the readings as well as class discussions and debates.

- **ICON Simulation** (20%): Students will engage in an ICON Simulation. The fee is \$13/student and should be purchased at the time of the simulation. Grade for the participation will be based on participation, peer evaluation, and debriefing memo. The debriefing memo will serve as the course's "final exam."

- **Risk Assessment and Analysis** (50%): Each student in the course will be assigned a country at random to evaluate the likelihood that the country will begin/develop/further develop and/or expand a WMD program. The purpose of this comprehensive paper is to develop a risk assessment methodology and to engage your research skills. Your paper will ideally apply the theories, frameworks, concepts, and ideas learned in this class and your other political science courses to understand and evaluate the likelihood of a country developing or not developing WMDs.

Students will construct a profile of the country's political system, external (foreign) relations, economy, and trade. Using the theories and concepts learned in class and in other political science courses, students will evaluate the potential for WMD development in your assigned country by evaluating and calculating, based on their estimation, the probability that WMD development will occur. A template will be provided to help guide students through each section of the research product. Students will generate a probability score based on their assessment with 0% indicating zero likelihood of developing a WMD program to 100%, expressing almost absolute certainty.

All students will complete an analytical memo that outlines how you reached your conclusions using theories, frameworks, and concepts we have learned about in class.

- Step 1: Progress Report #1 – 1-pager, due **Sunday, February 25**
- Step 2: Progress Report #2 – 1-pager, due **Sunday, March 17**
- Step 3: Completed Rough Draft – **Due Sunday, April 7**
- Final Product Due Date: **Final draft is due Sunday, April 28.**
 - **Undergraduate students: 14 pages, minimum**
 - **Graduate students: 18 pages, minimum**

Semester Activities and Reading Schedule

Please complete readings before class for the dates indicated below.

Legend:

(L) = lecture

(A) = class activity

(P) = presentations

(D) = discussion

0: Monday, January 29 – Introduction to the course

- Discussion of course, expectations, and assignments

1: Wednesday, January 31: **What are weapons of mass destruction? A primer (L)**

- Vipin Narang (2023), *Stopping the Bomb*, Chapter 1, pp. 1-14.
- Mark Wolverton (2022). *Nuclear Weapons*, Chapter 1, Introduction, pp. 1-24.
- W. Seth Carus (2012). *Defining 'Weapons of Mass Destruction.'* Washington, DC: National Defense University Press, pp. 1-11.

2 & 3: Monday, February 5 (L) & Wednesday, February 7 (A): **Why do states seek nuclear weapons and/or other WMDs?**

- Scott D. Sagan. "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb." *International Security* 21(3): 54-86.
- Vipin Narang (2023). *Stopping the Bomb*, Chapter 2, pp. 15-52.
- **In-class activity: Policy Activity**

4 & 5: Monday, February 12 (P) & Wednesday, February 14 (D): **Hedgers, Sprinters, Pursuers, and Hiders**

Presentations will take place on the major chapters in Narang's book:

- Chapter 3: The Varieties of Hedgers, pp. 53-126
- Chapter 4: The Sprinters, pp. 127-175
- Chapter 5: Sheltered Pursuers, pp. 176-235
- Chapter 6: The Hiders, pp. 236-291
- Chapter 7: Consequences for Nuclear Proliferation and Conflict, pp. 292-337
- **In-class presentations on 2/12, in-class discussion on 2/14.**

6: Monday, February 19 (P & D): **Nuclear Taboos**

- Nina Tannenwald (1999). "The nuclear taboo: the United States and Normative Basis of Nuclear Non-Use." *International Organization* 53(3): 433-468.
- McGeorge Bundy (1988/1990). "Danger and Survival: Choices about the Bomb in the First Fifty Years."
- Mark Wolverton (2022). *Nuclear Weapons*, MIT Press. Read Chapter 4, The Brink: Close Calls and Nuclear Crises, pp. 89-124.
- **In class discussion.**

7: Wednesday, February 21 (L + A): **Diminishing Aversion? Challenging the Normative Basis of Nuclear Non-Use**

- Daryl G. Press, Scott D. Sagan, and Benjamin A. Valentino (2013). "Atomic Aversion: Experimental Evidence on Taboos, Traditions, and the Non-Use of Nuclear Weapons." *American Political Science Review* 107(1): 188-206
- Elizabeth N. Saunders (2019). "The domestic politics of nuclear choices – a review essay." *International Security* 44(2): 146-84.
- **In-class activity: To be determined**

8: Monday, February 26: **Nuclear Legacy of Hiroshima and Nagasaki (P & D)**

- Kiyoshi Takenaka (2023). "Hiroshima marks a-bomb anniversary, calls nuclear deterrence 'folly.'" *Reuters*. <https://www.reuters.com/world/asia-pacific/hiroshima-marks-a-bomb-anniversary-calls-nuclear-deterrence-folly-2023-08-06/>
- The Guardian (2023). "Japan's PM deplors 'Russia's nuclear threat' on 78th anniversary of Hiroshima." <https://www.theguardian.com/world/2023/aug/06/on-78th-anniversary-of-atomic-bomb-hiroshima-mayor-says-nuclear-deterrence-folly>
- Tara Sonenshine (2023). Hiroshima attack marks its 78th anniversary – its lessons of unnecessary mass destruction could help guide future nuclear arms talks." *The Conversation*. <https://theconversation.com/hiroshima-attack-marks-its-78th-anniversary-its-lessons-of-unnecessary-mass-destruction-could-help-guide-future-nuclear-arms-talks-210115>
- Mark Wolverton (2022). *Nuclear Weapons*, MIT Press. Read Chapter 5, Brighter than the Sun, pp. 125-42.
- **In-class discussion.**

9: Wednesday, February 28: **Nuclear Restraint (L & P)**

- Togzhan Kassenova (2022). *Atomic Steppe*. Read Prologue and Epilogue.
- Maria Rost Rublee (2009). *Nonproliferation Norms: Why States Choose Nuclear Restraint*. Athens, GA: University of Georgia Press.
 - o Read Chapter 1, pp. 1-33.
 - o Read Chapter 6, pp. 201-224.
- Etel Solingen (1994). "The political economy of nuclear restraint." *International Security* 19(2): 126-169.
- Helen E. Purkitt, Stephen Burgess, and Peter Liberman (2002). "South Africa's Nuclear Decisions." *International Security* 27(1): 186-94.
- Alexander Lanoszka (2018). *Atomic Assurance: The Alliance Politics of Nuclear Proliferation*. Adelphi Papers. Cornell University Press. Read pp. 1-28.
- **Instructor's lecture and student presentations.**

10 & 11: Monday, March 4 & Wednesday, March 6: **Political Economy of Nuclear Weapons**

- Steven I. Schwartz et al. (1998). *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons since 1940*. Brookings Institution Press.
 - o Introduction, pp. 1-32.

- Chapter 10, The Economic Implications of Nuclear Weapons, pp. 519-544.
- Hyung-Jin Kim and Kim Tong-Hyung (2022). “Explainer: How impoverished N. Korea finances testing spree.” *Associated Press*. <https://apnews.com/article/europe-business-united-states-seoul-south-korea-2123df5d4759e555c91e7fb2f2f21e19>
- Congressional Budget Office (2021). “Projected costs of U.S. nuclear forces, 2021 to 2030.” <https://www.cbo.gov/publication/57240>
- **In-class activity.**

12: Monday, March 11: **WMDs for the Poor? Chemical Weapons Proliferation (L)**

- Peruse *Chemical Weapons Convention* (CWC) - https://www.opcw.org/sites/default/files/documents/CWC/CWC_en.pdf
- Jonathan Tucker and Kathleen M. Vogel (2000). “Preventing the proliferation of chemical and biological weapon materials and know-how.” *Nonproliferation Review*, Spring 2000, read pp. 88-96.
- Geoffrey Chapman, Hassan Elbahtimy, and Susan B. Martin (2018). “The future of chemical weapons: implications from the Syrian Civil War.” *Security Studies* 27(4): 704-33.

13: Wednesday, March 13: **WMDs for the Poor? Biological Weapons Proliferation (L)**

- Peruse *Biological Weapons Convention* (BWC) - https://en.wikisource.org/wiki/Biological_Weapons_Convention
- Jonathan Tucker (2001). “Biological Weapons Convention (BWC) Compliance Protocol.” NTI: <https://www.nti.org/analysis/articles/biological-weapons-convention-bwc/>
- Kavita M. Berger & Rocco J. Casagrande (2021). “20th-century nonproliferation meets 21st-century biotechnology.” *Nonproliferation Review*, read pp. 541-55.
- Glenn Cross & Lynn Klotz (2020). “21st century perspectives on the Biological Weapons Convention: Continued relevance or toothless paper tiger.” Read pp. 185-191.
- National Institutes of Health (NIH) (2022). “2001 Anthrax Attacks Revealed Need to Develop Countermeasures Against Biological Threats.” <https://nihrecord.nih.gov/2022/05/13/2001-anthrax-attacks-revealed-need-develop-countermeasures-against-biological-threats>

14 & 15: Monday, March 18 & Wednesday, March 20: **Nuclear Arms Races and Arms Control (L & D)**

- Nina Tannenwald (2020). “Life beyond arms control: moving toward a global regime of nuclear restraint & responsibility.” *Daedalus* 149(2): 205-221.
- Charles L. Glaser (2000). “The causes and consequences of arms races.” *Annual Review of Political Science* 3: 251-76.
- Aaron Karp (2000). “The spread of ballistic missiles and the transformation of global security.” *Nonproliferation Review*. Read pp. 106-120.
- **Instructor lectures (3/18), class discussion (3/20)**

Monday, March 25 & Wednesday, March 27 – **SPRING BREAK – NO CLASSES**

16: Monday, April 1: **Deterrence, Nuclear Strategies, & Security Interests (P, D)**

- David Kearn (2019). *Reassessing U.S. Nuclear Strategy*. Cambria Press, Chapter 1 (Read selections)
- Tytti Erasto (2023). "More investment in nuclear deterrence will not make Europe safer." Stockholm International Peace Research Institute, Commentary/Essay: <https://www.sipri.org/commentary/essay/2023/more-investment-nuclear-deterrence-will-not-make-europe-safer>
- Peter Watkins (2023). "British Nuclear Policy." https://icds.ee/wp-content/uploads/dlm_uploads/2023/06/ICDS_Brief_British_Nuclear_Policy_Peter_Watkins_May_2023.pdf
- Emmanuelle Maitre (2023). "French deterrence in the third nuclear age." Fondation pour la recherche strategique. Read selections.
- Caitlin Talmadge and Joshua Rovner (2023). "The meaning of China's nuclear modernization." *Journal of Strategic Studies*. <https://www.tandfonline.com/doi/abs/10.1080/01402390.2023.2212871>

17: Wednesday, April 3: **NPT, TPNW, and International Law (L, P, D)**

- Michal Onderco (2021). *Networked Proliferation: Making the NPT Permanent*. Stanford University Press, read Introduction pp. 1-16.
- Treaty on the Nonproliferation of Nuclear Weapons (NPT): <https://treaties.unoda.org/t/npt>
- Treaty on the Prohibition of Nuclear Weapons (TPNW): <https://treaties.unoda.org/t/tpnw>
- **Lectures, Presentations, and Discussions.**

SUNDAY, APRIL 7: Rough Draft of Risk Assessment Due By 11:59 PM

18 & 19: Monday, April 8 & April 10: **DPRK WMD Development (D)**

- Kim Tong-Yung and Hyung-Jin Kim (2023). "[Fears, questions about N. Korea's growing nuclear arsenal.](#)" *Associated Press*.
- Kim Tong-Hyung and Jiwon Song (2024). "North Korea says it tested a cruise missile, flaunting new nuclear-capable weapon." *Associated Press*. <https://apnews.com/article/north-korea-cruise-missile-kim-jong-un-nuclear-9a88de3d666a8151cec3b39e3bb83735>
- Jonathan Pollack (2014). *No Exit: North Korea, Nuclear Weapons, and International Security*. Adelphi Papers, IISS. Read pp. 131-157 (Chapter 5) and pp. 183-210 (Conclusion).
- Josh Smith (2023). "Explainer: How could North Korea use its nuclear weapons?" *Reuters*. <https://www.reuters.com/world/asia-pacific/how-could-north-korea-use-its-nuclear-weapons-2023-12-21/>
- Council on Foreign Relations: North Korean Nuclear Negotiations (1985-2022): <https://www.cfr.org/timeline/north-korean-nuclear-negotiations>
- Vipin Narang (2023). *Seeking the Bomb*; read Chapter 5, focusing especially on North Korea.

20 & 21: Monday, April 15 & Wednesday, April 17: Iran and the failure of the JCPOA (D)

- Vipin Narang (2023). *Seeking the Bomb*; Read Chapter 7, focusing especially on Iran.
- Video: **C-SPAN Press Conference Coverage, August 14, 2002:** <https://www.c-span.org/video/?172005-1/iran-nuclear-weapons>
 - o Transcript here: <https://www.iranwatch.org/library/ncri-new-information-top-secret-nuclear-projects-8-14-02>
- **Associated Press TV:** <https://www.youtube.com/watch?v=hNonaHJBEGY>
- Jo Warrick (2003). "Iran said to be producing bioweapons." *Washington Post*. <https://www.washingtonpost.com/archive/politics/2003/05/15/iran-said-to-be-producing-bioweapons/204e86ce-7f4b-4b6f-ab82-878aa20bbca7/>
- Glenn Kessler (2002). "Front firms aided Iran nuclear bomb effort, sources say." *Washington Post*. <https://www.washingtonpost.com/archive/politics/2002/12/19/front-firms-aided-iran-nuclear-bomb-effort-sources-say/0ccb278d-c1de-4cf5-a5d8-452db1d44b49/>
- Nima Gerami and Pierre Goldschmidt (2012). "The international atomic energy agency's decision to find Iran in non-compliance." *Center for the Study of Weapons of Mass Destruction*, Case Study #6. Read pp. 1-16.

22 & 23: Monday, April 22 & Wednesday, April 24: Simulation Preparation

- Vipin Narang (2023). *Seeking the Bomb*; Read Chapter 8, Conclusion.
- Students will receive their "country packets" and we will discuss how the simulation will be conducted.

SUNDAY, APRIL 28: Final Draft WMD Risk Paper Due By 11:59 PM

24: Monday, April 29: ICON SIMULATION – Day 1

- *No reading; please come prepared to engage with your group and the class.*

25: Wednesday, May 1: ICON SIMULATION – Day 2

- *No reading; please come prepared to engage with your group and the class.*

26: Monday, May 6: ICON SIMULATION – Day 3

- *No reading; please come prepared to engage with your group and the class.*

27: Wednesday, May 8: ICON SIMULATION – Day 4

- *No reading; please come prepared to engage with your group and the class.*

FRIDAY, MAY 17: Debriefing Paper Due by 11:59 PM (this is our course's final exam)