

PSCI 2275
Politics and Strategy of Weapons of Mass Destruction

Spring 2020

Instructor: Andrew Coe, andrew.coe@vanderbilt.edu

Office Hours: use my [online calendar](#) to schedule a meeting

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Meetings: TTh, 4 - 5:15pm, Furman Hall 114

Final Exam: Thursday, April 30, 3pm

Description

What would happen if a nuclear weapon exploded in Los Angeles? How hard would it be for terrorists to build a nuclear weapon, and what can be done to prevent that?

Was it moral for the US use nuclear weapons against Japan? Why did the Iraq War happen? Why was the US intelligence on Iraq's WMD so screwed up? What would Saddam Hussein have done with nuclear weapons, if he'd been allowed to get them? Will the US attack Iran over its nuclear program? Should it? Why can't the US or the international community prevent countries like North Korea from getting WMD?

Are all the worries about WMD just over-hyped nonsense? What difference do WMD make in international politics? What if the spread of WMD actually makes the world better off?

When Robert Oppenheimer, the theoretical physicist in charge of the secret US program to develop nuclear weapons, saw the first-ever atomic detonation, in a test in the New Mexico desert in 1945, he thought to himself: "Now I am become Death, the destroyer of worlds." Since that fateful day, conflict among the world's nations has posed the risk that humanity itself could be annihilated. The United States and Soviet Union soon set off an arms race that would last almost half a century, consume so many resources that it eventually brought the Soviet Union to collapse, and lead to the production of enough nuclear weapons to kill every human being on Earth many times over. And

yet, almost from that same day, governments set about trying to understand the implications of these new weapons, and to prevent their use and their spread to others.

In this class, we will study the difference weapons of mass destruction have made to the course of human civilization. We will learn how such weapons are made, what effects they have, and how and why they have spread. We will read about the history of their use, from ancient times (did you know the Greeks used chemical weapons?) to the present (or that terrorists used nerve gas to attack the Tokyo subway?). We will study the evolution in US nuclear strategy, from massive retaliation (“making the rubble bounce”) to restraint, and the debates over how to stop these weapons from spreading further, and what to do if these efforts fail.

Along the way, you will gain and refine a number of skills that will be useful in later classes, and in your eventual career. You will learn how to analyze controversial issues, dispelling the hype and vitriol that often surrounds these in public commentary. You will practice communicating your assessments and judgments with calm, concision, and clarity. You will see how modern research in political science is done, and how it is applied to real-world problems. Finally, you will learn how to read and digest academic research, even when it uses mathematical or other techniques you don’t understand.

Contacting Me: To meet with me, reserve a slot on my [online calendar](#). I’m happy to chat about course materials, assignments, exams, or whatever else is on your mind.

Students with Disabilities: If you need course accommodations due to a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me and/or the appropriate office as soon as possible.

Academic Integrity: Don’t lie, cheat, or steal. Plagiarism is all three (think about it). Also, don’t abet the bad behavior of others. If you catch a classmate breaking exam rules or copying another’s work and don’t report it, you’re abetting it. Get caught doing any of these and the penalty is an F in the course, *at minimum*. For more detail, see the [Honor Code](#) and the related guide to [avoiding plagiarism](#).

Books

Please acquire the books listed below. Don’t be alarmed by the long list. Those with a star (*) are available in electronic format for free from the Vanderbilt Library web portal (click on the Acorn Catalog link, then the tab for “Online Resource”). If you buy a copy of all the others from Amazon, the total cost should be around \$70.

1. *Jeanne Guillemin. *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism*. Columbia University Press, 2006.
2. Jonathan B. Tucker. *War of Nerves: Chemical Warfare from World War I to Al-Qaeda*. Anchor, 2007. \$14.

3. J. Samuel Walker. *Prompt and Utter Destruction: Truman and the Use of Atomic Bombs Against Japan, Third Edition*. University of North Carolina Press, 2016. \$14.
4. Lawrence Freedman. *The Evolution of Nuclear Strategy, Third Edition*. Palgrave Macmillan, 2003. \$29.
5. *Richard K. Betts. *Enemies of Intelligence: Knowledge and Power in American National Security*. Columbia University Press, 2009.
6. Kenneth M. Pollack. *The Threatening Storm: The Case for Invading Iraq*. Random House (NY), 2002. \$13.

Requirements

Preparation and Participation (10%): Careful, thorough reading of the assigned papers before class and participating thoughtfully in class are essential to the value of this course. Though most meetings will be devoted to lecture, there will be ample opportunity for you to raise questions and engage in discussion with your classmates. You can also come by my office hours.

Short Assignments (30%): At several points during the semester, I will give you a short assignment to help you work through the readings.

Midterm (25%) and Final (35%) Exams: The exams will be closed-book and closed-notes. The midterm will be administered in class; the final on April 30. They will include multiple choice and short answer questions, and will also ask you to define some key terms from the readings.

Late Policy: If you need to, you may submit one short assignment up to five days late, with no questions asked as long as you email the TA before the deadline to say you'll be taking the extension. However, everyone must take the midterm and final at the specified date and time. Exceptions to this policy for personal emergencies will be granted at my discretion.

Schedule and Readings

Readings are to be completed by the beginning of class on the date listed. Some of the readings build in a sequence: it will be easier to understand them if you read them in the order listed. The journal articles and working papers listed below will be available on the class website.

NOTE: Many of the papers listed below contain appendices that describe the mathematical details behind the paper's results. I will not test you on the material in these appendices, but I encourage you to read them if you are curious about the details.

The Basics

What problems do weapons of mass destruction create? When did these problems arise, and why do they still concern us? What exactly are weapons of mass destruction, and how are they created?

Tuesday, January 7: Overview of the class, no assigned readings

NO CLASS Thursday, January 9: [72 pages]

- Francis J. Gavin. “Same As It Ever Was: Nuclear Alarmism, Proliferation, and the Cold War.” *International Security* 34.3 (2010): 7–37.
- Nicholas L. Miller. “Nuclear Dominoes: A Self-Defeating Prophecy?” *Security Studies* 23.1 (2014): 33–73.

Tuesday, January 14: [57 pages]

- U. S. Congress, Office of Technology Assessment. *Technologies Underlying Weapons of Mass Destruction*. U. S. Government Printing Office, 1993. Pages 119–175.

Thursday, January 16: [78 pages]

- Jonathan B. Tucker. *War of Nerves: Chemical Warfare from World War I to Al-Qaeda*. Anchor, 2007. Prologue and Chapters 1–2.
- Jeanne Guillemin. *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism*. Columbia University Press, 2006. Introduction and Chapter 1.

How WMD Are (or Could Be) Used

How might WMD be used, and how have they actually been used? What are the consequences of their use? How might their use be deterred?

Tuesday, January 21: [110 pages]

- J. Samuel Walker. *Prompt and Utter Destruction: Truman and the Use of Atomic Bombs Against Japan, Third Edition*. University of North Carolina Press, 2016.

Thursday, January 23: [86 pages]

- Lawrence Freedman. *The Evolution of Nuclear Strategy*. Palgrave MacMillan, 2003. Sections 1 and 2.

Tuesday, January 28: [76 pages]

- Freedman. *The Evolution of Nuclear Strategy*. Sections 3 and 4.

Thursday, January 30: [76 pages]

- Freedman. *The Evolution of Nuclear Strategy*. Chapters 12 and 14–17.

Tuesday, February 4: [79 pages]

- Freedman. *The Evolution of Nuclear Strategy*. Chapters 23–26.

Thursday, February 6: [116 pages]

- Tucker. *War of Nerves*. Chapters 3–8.

Tuesday, February 11: [108 pages]

- Guillemin. *Biological Weapons*. Chapters 2–7.

The Spread of WMD

Why do states try to get these weapons, and when they do, are we better or worse off?

Thursday, February 13: [60 pages]

- Scott D. Sagan. “Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb.” *International Security* 21.3 (1996/7): 54–86.
- Scott D. Sagan. “The Causes of Nuclear Weapons Proliferation.” *Annual Review of Political Science* 14 (2011): 225–244.

Tuesday, February 18: [79 pages]

- Scott D. Sagan and Kenneth N. Waltz. *The Spread of Nuclear Weapons: An Enduring Debate*. W. W. Norton and Company, 2012. Chapters 1–2.

Thursday, February 20: [75 pages]

- Hal Brands and David Palkki. “Saddam, Israel, and the Bomb: Nuclear Alarmism Justified?” *International Security* 36.1 (2011): 133–166.
- Vipin Narang. “Posturing for Peace? Pakistan’s Nuclear Postures and South Asian Stability.” *International Security* 34.3 (2010): 38–78.

Tuesday, February 25: [38 pages]

- Robert Powell. “Nuclear Brinkmanship, Limited War, and Military Power.” *International Organization* 69.3 (2015): 589–626.

Thursday, February 27: Midterm Exam (in class)

SPRING BREAK

Using Diplomacy to Halt Proliferation

How can states be peacefully stopped from seeking WMD? How can the dangers inherent in states’ WMD arsenals be reduced?

Tuesday, March 10: [? + 27 pages]

- George Bunn. “The Nuclear Nonproliferation Treaty: History and Current Problems.” *Arms Control Today* (December 2003).

- Jaswant Singh. “Against Nuclear Apartheid.” *Foreign Affairs* 77.5 (1998): 41–52.
- Andrew J. Coe and Jane Vaynman. “Collusion and the Nuclear Nonproliferation Regime.” *Journal of Politics* 77.4 (2014): 983–997.

Thursday, March 12: [59 pages]

- Guillemin. *Biological Weapons*. Chapters 8–10.

Tuesday, March 17: [157 pages]

- Tucker. *War of Nerves*. Chapters 9–15.

Using Coercion to Halt Proliferation

How can we tell when a state is pursuing WMD? How can force or threats be used to stop it? Why go to war when sanctions might suffice?

Thursday, March 19: [47 pages]

- Richard K. Betts. *Enemies of Intelligence: Knowledge and Power in American National Security*. Columbia University Press, 2009. Chapters 2–3.

Tuesday, March 24: [70 pages]

- Betts. *Enemies of Intelligence*. Chapters 4–5.
- Paul R. Pillar. “Intelligence, Policy, and the War in Iraq.” *Foreign Affairs* 85.2 (2006): 15–27.

Thursday, March 26: [51 pages]

- Sarah E. Kreps and Matthew Fuhrmann. “Attacking the Atom: Does Bombing Nuclear Facilities Affect Proliferation?” *Journal of Strategic Studies* 34.2 (2011): 161–187.
- Robert Jervis. “Understanding the Bush Doctrine.” *Political Science Quarterly* 118.3 (2003): 365–388.

Tuesday, March 31: [54 pages]

- Kenneth M. Pollack. *The Threatening Storm: The Case for Invading Iraq*. Random House (NY), 2002. Chapter 3.

Thursday, April 2: [70 pages]

- Kenneth M. Pollack. *The Threatening Storm: The Case for Invading Iraq*. Random House (NY), 2002. Chapters 4–5.

Tuesday, April 7: [70 pages]

- Kenneth M. Pollack. *The Threatening Storm: The Case for Invading Iraq*. Random House (NY), 2002. Chapters 7–8.

Thursday, April 9: [43 pages]

- Muhammet A. Bas and Andrew J. Coe. “Give Peace a (Second) Chance: The Viability of Bilateral Nonproliferation Deals.” Working paper (2016).

New Problems with WMD

Can the United States achieve nuclear supremacy? Could terrorists get WMD, and could they be stopped from using it? Will North Korea or other actors sell nuclear weapons?

Tuesday, April 14: [51 pages]

- Keir A. Lieber and Daryl G. Press. “The End of MAD? The Nuclear Dimension of US Primacy.” *International Security* 30.4 (2006): 7–44.
- Keir A. Lieber and Daryl G. Press. “The Nukes We Need: Preserving the American Deterrent.” *Foreign Affairs* 88.6 (2009): 39–51.

Thursday, April 16: [75 pages]

- Bob Graham and Jim Talent. *World at Risk: The Report of the Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism*. Vintage, 2008. Pages 1–75.