# **Government 391: The Politics of Nuclear Weapons** Spring 2018

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Office: Tyler 348

Office hours: Tuesdays, 9:30am–11:30am, or by appointment

# **Course Description**

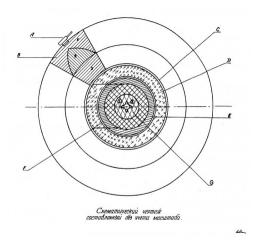
Heated rhetoric with North Korea, an international standoff with Iran, border skirmishes between India and Pakistan, and the US invasion of Iraq—nuclear weapons are important drivers of these and other international crises. This course will introduce students to nuclear proliferation and nuclear weapons strategy, with an emphasis on the policy debates surrounding nonproliferation, nuclear security, and nuclear deterrence. Students will learn the fundamentals of nuclear weapons technology, why countries seek nuclear weapons, the risks nuclear forces pose to international security, and the tools policymakers deploy to prevent their proliferation or use. A variety of guest speakers from government and academia will help us examine the complex menu of policy options that face real-world nuclear decision-makers and national leaders.

# **Objectives**

This course has two broad goals. First, the course aims to introduce you to academic scholarship and policy analysis associated with the role of nuclear weapon in international politics. Second, the course will expose you to a variety of perspectives on nuclear issues—and career paths in international security—including from academics, researchers at think tanks, and policymakers in government.

When you complete this course, you will be an educated consumer of world events related to nuclear weapons. You will be able to:

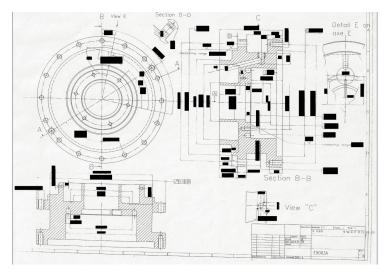
- Apply theories of nuclear proliferation and nuclear coercion to real-world cases.
- Critically evaluate policies and public statements on nuclear nonproliferation and deterrence that you encounter in the popular press.
- Understand the different roles of various intelligence and policy agencies in the field of nuclear weapons, and the distinct perspectives of researchers in and out of government.



Soviet sketch of US atomic bomb, 1946. Source: Alex Wellerstein, Restricted Data blog.

#### **Class format**

This course is structured around a series of guest lectures delivered by policy practitioners, researchers, and academics. Most weeks, we will meet in a smaller discussion section on Tuesday and hear from a guest speaker in a larger session on Thursday (there are some exceptions—see the detailed course schedule later in the syllabus for details). The central role of guest lectures in this course means a certain amount of flexibility will be called for. I appreciate your understanding if speakers are



Drawing of a centrifuge motor housing linked to the AQ Khan Proliferation network, redacted. Source: Institute for Science and International Security.

delayed or must reschedule. The schedule of classes and readings on Blackboard will be updated to reflect any changes.

# **Requirements and Policies**

I expect you to attend discussion sections and lectures, complete the readings before the class session for which they are assigned, participate in class discussion, and complete course assignments on time.

#### Attendance and participation

Because this class is structured around a series of guest lectures, attendance is absolutely essential to your learning in the course. You must attend the guest lectures! You will sign in at each lecture you attend. Please arrive to the guest lecture on time. Students who arrive more than 10 minutes late or leave more than ten minutes early will not receive credit for attending. Each missed guest lecture will reduce the participation portion of your grade by one letter grade. Please come to the guest lectures prepared to engage with the speaker—listen respectfully, take notes, and ask thoughtful questions.

Discussion sections are designed to achieve learning goals that lectures cannot—helping you think through key concepts, understand alternative perspectives, and gain practice expressing your views to others in a constructive way. In addition, discussions will help clarify the readings, put the guest lectures into a larger context, and introduce new material and tools.

Because discussion is so important to the goals of the course, you must attend sections to do well in this course. But it is not enough to just show up—you must complete the readings before their assigned class session and engage in class discussions and exercises. Students will earn high participation grades by consistently demonstrating careful reading of the course materials and interacting with the instructor and fellow students. If you find you are having trouble speaking up in class, please come see me so we can discuss how to help you participate effectively in the course.

You can earn extra credit toward your participation grade by serving as a research subject for the Government Department's Omnibus Project. This is an opportunity to be involved with political

science research conducted by students and faculty. There will be an alternative writing assignment for those who don't want to participate in the Omnibus Project or who aren't old enough to participate.

## Readings and other materials

There are no books assigned for this course. Assigned readings include a mix of academic literature and policy documents. We will also make some use of videos and podcasts. All materials will be linked from the course Blackboard site. The reading list is subject to change, and I will announce any changes in class or via email. I have included optional resources below the list of required readings for some class meetings. These do not have to be read for class, but you may find them helpful to refer to when writing the case study or policy memo.

A number of the assigned readings from the academic literature use statistics or the language of game theory to make their arguments. Don't worry about the details of the methodology or mathematical proofs in these papers—although we will spend some time in class discussing this—instead, focus on the broader arguments and findings.

#### Some tips for the readings:

- For empirical articles (whether they use statistics or historical case studies), consider the set of data or facts that the findings are based on. Would we expect these findings to hold up for other cases or data? Does the research really constitute a test of the theory?
- For theoretical articles (whether they use game theory or more informal language), consider the assumptions that lead to the article's conclusions. Is the logic of the argument internally consistent? What facts in the world would cause us to doubt the article's conclusions?
- For policy documents, consider the political, bureaucratic, and security context of the document. Who is the author? What is the author's purpose in writing and releasing the document? What message does the document send to foreign and domestic audiences?

Several of the guest lectures and class discussions will concern current issues in nuclear security, and I expect you to be aware of international news related to nuclear weapons. I recommend that you receive some kind of news summary daily for the duration of the course. One option is a Google news alert: go to <a href="www.google.com/alerts">www.google.com/alerts</a>, enter "nuclear" as the search term, and set the frequency to once per day. You will then receive a daily email with the day's nuclear-related news. The Carnegie Endowment for International Peace also offers a daily nuclear news summary at <a href="mailto:carnegieendowment.org/publications/pronews">carnegieendowment.org/publications/pronews</a> (click on "Subscribe" to receive the daily email).

You should also occasionally check out academic or policy blogs that cover nuclear issues—such as <u>Arms Control Wonk</u>, <u>The Monkey Cage</u>, <u>War on the Rocks</u>, or <u>Nuclear Secrecy</u>—and keep up with international news, generally. Good options for news sources are the *New York Times*, <u>Washington Post</u>, the <u>Economist</u>, and <u>Foreign Policy</u>. All of these have daily or weekly email digests that can keep you up to date, and the College offers us free access to the New York Times at <u>www.accessnyt.com</u>.

Finally, I will point out several additional resources in class to provide more background on particular issues. One general resource that will be helpful in writing your papers is the Nuclear Threat Initiative at <a href="https://www.nti.org">www.nti.org</a>. In particular, I recommend the nuclear tutorials in the

education center on the site. There are also resources available on the nuclear nonproliferation regime, nuclear security and nuclear terrorism, missile testing, and others.

#### Written assignments

Three written assignments are required for this course:

In a **case study** of 5–7 double-spaced pages, due before class on February 27, you will examine the factors that drove your assigned country to seek nuclear weapons, and decide whether your case lends support to the theories of nuclear proliferation we will discuss in this course.

In a **response paper** of 3–4 double-spaced pages you will discuss two or more of the guest lectures in the course, identifying common themes, areas of disagreement, or opportunities for further research. The response paper may be submitted any time before April 26.

In a **policy memo** of 12–15 double-spaced pages, due by 10pm on May 3, you will analyze a current nuclear weapons policy issue of your choice and provide recommendations for addressing the issue. The policy memo takes the place of the final exam in this course.

All written assignments will be submitted on Blackboard. I will provide more information about each of these assignments later in the course, and those handouts will be available on Blackboard.

The Writing Resources Center, located on the first floor of Swem Library, is a free service provided to W&M students. Trained consultants offer individual assistance with writing, presentation, and other communication assignments across disciplines and at any stage, from

generating ideas to polishing a final product. To make an appointment, visit the WRC webpage <a href="https://www.wm.edu/wrc">www.wm.edu/wrc</a>.

#### Ouizzes

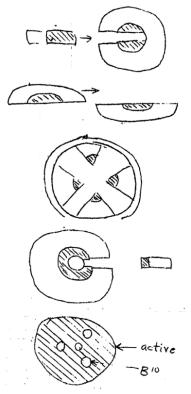
There will be about 10 **short quizzes** in this course. Several studies show that frequent quizzes help students integrate and retain new course material. Quizzes also provide more frequent feedback about your performance in the course, and help me understand whether concepts are being understood.

Quizzes will be administered via Blackboard at the end of each week in which we host a guest speaker (dates are marked on the detailed schedule at the end of the syllabus). The quiz will open Friday at noon and must be completed by Tuesday at noon. Each quiz will focus on the week's guest speaker, but may also include content from discussion sections. I will drop your lowest quiz grade when calculating your grade for the course.

#### Grades

Your grade will be based on the following:

Attendance/participation: 20 % Case study: 25 % Response paper: 10 % Policy memo: 30 % Quizzes: 15 %



Fission weapon designs explored by the Manhattan Project, 1942. Source: Robert Serber, Los Alamos Primer.

You must submit all three written assignments to pass this course. There is no in-class final exam.

I reserve A's for excellent work. I give B's for good, above-average performance in the course. C's are for work of average quality, and D's indicate below-average performance. Those students whose work is substantially below average will receive an F.

		100-93	A	92-90	A-
89-87	B+	86-83	В	82-80	B-
79-77	C+	76-73	C	72-70	C-, etc.

#### Late work

Please turn your written assignments in on time. Come talk to me—before the due date—if you are having trouble. Late written assignments will be reduced by a third of a grade for each day (or portion of a day) that they are late. Late quizzes will not be accepted.

#### Academic Honesty

Your work in this class is governed by the Honor Code. You should feel free to discuss course material with others, but you cannot work together on assignments. Papers and quizzes must be solely your own work. Quizzes in this course are closed-book and closed-note.

Do not plagiarize. If you use someone else's words in written work, you must put them in quotes and cite the source. If you use someone else's ideas in written work, you must cite the source, even if you don't use the source's exact words. Always err on the side of citing other work. If you have questions about what constitutes plagiarism, please ask me before you submit the assignment.

For guidance on appropriate sourcing, see the following resources:

http://guides.swem.wm.edu/writingandciting

http://library.duke.edu/research/plagiarism

#### Accommodations

William & Mary accommodates students with disabilities in accordance with federal laws and university policy. Any student who may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2509 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. See <a href="https://www.wm.edu/sas">www.wm.edu/sas</a> for more information.

#### Communication

The best way to reach me is via email (jkaplow [at] wm.edu). If you have more than a quick question, office hours are better than email. If my regular office hours don't work for you, please email me to set up an appointment.

#### Technology in class

I will occasionally ask you to fill out an online survey or refer to internet-based resources during discussion sections, so it can be useful to bring a computer or tablet with you to discussion sections (although a phone is generally fine). During guest lectures, however, please refrain from using electronic devices. A number of studies suggest that we learn more when we take notes on paper and putting away electronic devices can help avoid distractions that might take our attention away from our guest.

#### *Video/audio recording*

Meetings of this course may be recorded as a resource for future course offerings. If the instructor or a William & Mary office plan to use the recordings, students identifiable in the recordings will be notified to request consent prior to such use.

#### **Course Outline**

The course is divided into two parts. In the first half, we will discuss issues related to the acquisition of nuclear weapons. Why do some states seek or acquire nuclear weapons and not others? What factors make states more likely to proliferate, and what factors lead to nuclear restraint? What tools are available to policymakers to limit the spread of nuclear weapons, and are these tools effective?

The second half of the course addresses the effect of nuclear weapons on international security. Do nuclear weapons matter? Do they make the world safer or increase the risk of conflict? What kinds of nuclear forces are most useful for states? How do states control their nuclear weapons? What is the risk of nuclear terrorism, and what can states do about it? Will we always have these weapons, or is there a path toward denuclearization?

# **Detailed Schedule and Readings**

Key dates:

Add/Drop deadline, January 26 Last day to withdraw, March 16

Note that some of the links below will not work unless you are logged onto Blackboard. If you're having trouble with a link, log into Blackboard and try again.

This reading list/schedule is subject to change!

Tuesday	Thursday
	January 18 Introduction: Why study nuclear weapons? Required:
	Ernest J. Moniz speech on Global Nuclear Risks: <u>Video</u> or <u>Text</u>
23 Perspectives on nuclear politics	25 How nuclear weapons work
Required:	Required:
Francis J. Gavin. 2014. "What we talk about	Watch the following two videos:
when we talk about nuclear weapons: A review essay." <i>H-Diplo Forum</i> .	Matthew Bunn. 2013. "How nuclear weapons work, 1/2." (Slides available here.)
Erik Gartzke and Matthew Kroenig. 2017.  "Social Scientific Analysis of Nuclear Weapons:	Matthew Bunn. 2013. "How nuclear weapons work, 2/2." (Slides available here.)
Past Scholarly Successes, Contemporary Challenges, and Future Research	Optional (in order of difficulty):
Opportunities." Journal of Conflict Resolution 61(9): 1853–1874  Daniel W. Drezner. 2017. The Ideas Industry. Chapter 5.  Optional:  Several responses to Gavin's piece are in the full H-Diplo forum.	Joseph Cirincione, Jon Wolfstahl, and Miriam Rajkumar. 2005. Deadly Arsenals: Nuclear,
	Biological, and Chemical Threats (Second Edition): Chapter 3.
	Barnaby, Frank. "Nuclear Weapons." <i>How to</i> Build a Nuclear Bomb, 15-39.
	Office of Technology Assessment, Technologies <u>Underlying Weapons of Mass Destruction</u> (Washington, DC: OTA 1993), Chapter 4.
	Robert Serber. 1943. The Los Alamos Primer.

Tuesday	Thursday
January 30 The drivers of nuclear proliferation	February 1 Nuclear weapons and US foreign policy
Guest speaker: Neil Narang, Assistant Professor of Political Science, University of California, Santa Barbara	Guest speaker: Jim Webb, former United States Senator from Virginia
Read more about Prof. Narang here.	Read more about Sen. Webb here.  Required:
Required:  Dong-Joon Jo and Erik Gartzke. 2007.	Barack Obama. 2009. Speech at Hradcany Square, Prague, Czech Republic. (Transcript
"Determinants of Nuclear Weapons Proliferation: A Quantitative Model." Journal of	available here.)
Conflict Resolution 51(1): 167–194.	Optional: On the role of the legislative branch in nuclear
Sagan, Scott D. 1996/1997. "Why Do States Build Nuclear Weapons? Three Models in	policy:
Search of a Bomb," <i>International Security</i> 21(3): 54-86.	Senator Tim Kaine speech at CEIP Nuclear Conference, 2017.
Optional:	Tom Cotton. 2017. "A Conversation on the Iran
Etel Solingen. 2007. Nuclear Logics: Contrasting Paths in East Asia and the Middle East.	Nuclear Deal." <i>Council on Foreign Relations</i> .  Stephen P. Mulligan. 2017. "Legislation
Princeton: Princeton University Press, Chapters	Limiting the President's Power to Use Nuclear
1 and 2.  Jacques E.C. Hymans. 2006. "Theories of	Weapons: Separation of Powers Implications."  Congressional Research Service Memorandum.
Nuclear Proliferation: The State of the Field."  Nonproliferation Review 13(3): 455–465.	

Tuesday	Thursday
February 6	8
Nuclear latency	Nuclear intelligence
** Quiz 1 closes at 12pm **	Guest speaker: Senior US Intelligence Official
** Quiz 1 closes at 12pm **  Required:  Scott D. Sagan. 2010. "Nuclear Latency and Nuclear Proliferation." In Forecasting Nuclear Proliferation in the 21 <sup>st</sup> Century, Vol. 1. Chapter 5, 80–101.  Mark Fitzpatrick. 2008. "Assessing Proliferation Risks of Civilian Nuclear Programmes." Nuclear Programmes in the Middle East, Chapter 7, 141–149.  Optional:  Rupal N. Mehta and Rachel Elizabeth Whitlark. 2017. "The Benefits and Burdens of Nuclear Latency." International Studies Quarterly 61(3): 517–528.  Tristan Volpe. 2017. "Atomic Leverage: Compellence with Nuclear Latency." Security Studies 26(3): 517–544.	Required:  Eric Rosenbach and Aki J. Peritz. 2009. Confrontation or Collaboration: Congress and the Intelligence Community. Pages 10–17, 36–39.  National Intelligence Council. 2007. "Iran: Nuclear Intentions and Capabilities." National Intelligence Estimate.  John R. Bolton. 2007. "The Flaws in the Iran Report." Washington Post.  Joshua Rovner. 2015. "Why US Intelligence is Right About Iran." Washington Post, Monkey Cage Blog.  Optional:  Thomas Graham Jr. and Keith A. Hansen. 2009. "Detecting and Monitoring Clandestine WMD Programs." Preventing Catastrophe, Chapter 2, 22–42.  Russell, Richard L. 2005. "A Weak Pillar for American National Security: The CIA's Dismal Performance Against WMD Threats." Intelligence and National Security 20(3): 466-485.  Alexander H. Montgomery and Adam Mount. 2014. "Misestimation: Explaining US Failures to Predict Nuclear Weapons Programs." Intelligence and National Security 29(3): 357–386.

Tuesday	Thursday
February 13	15
Proliferation networks	The Nuclear Nonproliferation Regime
** Quiz 2 closes at 12pm **	Required:
Required:	William C. Potter. 2010. "The NPT & the Sources of Nuclear Restraint." <i>Daedalus</i> 139(1),
Alexander H. Montgomery. 2005. "Ringing in	<u>68–81.</u>
Proliferation: How to Dismantle an Atomic Bomb Network." International Security 30(2),	Jeffrey Fields and Jason S. Enia. 2009. "The
<u>153–187.</u>	Health of the Nuclear Nonproliferation Regime." Nonproliferation Review 16(2): 173–
Mark Fitzpatrick. 2007. "A.Q. Khan and	196.
Onward Proliferation from Pakistan." Nuclear	
Black Markets: Pakistan, A.Q. Khan and the rise	Optional:
of proliferation networks. Chapter 3, 65-91.	NTI has a great resource on the treaties and
Optional:	organizations that make up the
•	nonproliferation regime
Broad, William J. and David E. Sanger. 2008. "In Nuclear Net's Undoing, A Web of Shadowy	Matthew Fuhrmann and Yonatan Lupu. 2016.
Deals," New York Times.	"Do Arms Control Treaties Work? Assessing the
Mahdi Obeidi and Kurt Pitzer. 2004. "Shopping	Effectiveness of the Nuclear Nonproliferation
in Europe," in <i>The Bomb in My Garden: Secrets</i>	<u>Treaty." International Studies Quarterly 60(3):</u> 530–539.
of Saddam's Nuclear Mastermind. Hoboken, N.J:	
Wiley, 99-118.	Jeffrey M. Kaplow. 2018. "State Compliance and the Track Record of International Security
Alexander H. Montgomery. 2013. "Stop	Institutions." Working Paper.
Helping Me: When Nuclear Assistance Impedes	The state of the s
Nuclear Programs." The Nuclear Renaissance	
and International Security. 177–202.	

Tuesday	Thursday
February 20 Counterproliferation	22 Reaching the Nuclear Agreement with Iran and Preserving It
Required:  Målfrid Braut-Hegghammer. 2011. "Revisiting Osirak: Preventive Attacks and Nuclear Proliferation Risks." International Security 36(1): 101–132.  Nicholas L. Miller. 2014. "The Secret Success of Nonproliferation Sanctions." International Organization 68(4): 913–944.  Optional:	Guest speaker: Mark Fitzpatrick, Executive Director, IISS-Americas  Read more about Mark Fitzpatrick here.  Required:  Mark Fitzpatrick. 2015. "Iran: A Good Deal."  Survival 57(5): 47–52.  Mark Fitzpatrick. 2017. "An Order of Priorities in Confronting Iran." Survival 59(2): 25–29.
Ashton B. Carter. 2004. "How to Counter WMD." Foreign Affairs 83(5): 72–85.  Rachel Elizabeth Whitlark. 2017. "Nuclear Beliefs: A Leader-Focused Theory of Counter-Proliferation." Security Studies 26(4): 545–574.  Matthew Fuhrmann 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.	Matthew Kroenig. 2016. "How to Unwind the Iran Nuclear Deal." <i>The American Interest</i> .  Optional: For background on the Iran deal, see:  Belfer Center for Science and International Affairs. 2015. <i>The Iran Nuclear Deal: A Definitive Guide</i> .  Vox.com Video. 2015. "How the Iran Nuclear Deal Words Problemed in 2 Minutes"
<u>5 1(0). 551 557.</u>	Deal Works, Explained in 3 Minutes."  For another option for dealing with Iran, see:  Matthew Kroenig. 2012. "Time to Attack Iran: Why a Strike is the Least Bad Option." Foreign Affairs 91(1): 76–80.  Colin H. Kahl. 2012. "Not Time to Attack Iran: Why War Should Be a Last Resort." Foreign Affairs 91(2): 166–173.

Tuesday	Thursday
February 27 The future of proliferation	March 1 The Effects of Proliferation: Nuclear Crises and Coercion
** Quiz 3 closes at 12pm **  ** Case Study due before class **	Guest speaker: Todd Sechser, Associate Professor of Politics, University of Virginia
No required readings (start reading for	Read more about Prof. Sechser here.
No required readings (start reading for Thursday's class!)	Required:
	Thomas C. Schelling. 1966. "The Manipulation of Risk." <i>Arms and Influence</i> , Chapter 3, pgs. 92–125.
	Todd S. Sechser and Matthew Fuhrmann. 2017. <i>Nuclear Weapons and Coercive Diplomacy</i> , Chapters 1 and 2, pgs. 3–60.
	Optional:
	Todd S. Sechser and Matthew Fuhrmann. 2017. "The Madman Myth: Trump and the Bomb." <i>H-Diplo/ISSF Policy Series</i> .

# **Spring Break**

#### March 13

## US nuclear forces and posture

\*\* Quiz 4 closes at 12pm \*\*

#### Required:

Hans M. Kristensen and Robert S. Norris. 2017. "United States Nuclear Forces, 2017." *Bulletin of the Atomic Scientists* 73(1): 48–57.

<u>United States Department of Defense. 2018.</u> <u>Nuclear Posture Review.</u> (Read at least the Executive Summary, skim other sections of interest.)

#### Optional:

Erik Gartzke, Jeffrey M. Kaplow, and Rupal N. Mehta. 2014. "The Determinants of Nuclear Force Structure." *Journal of Conflict Resolution* 58(3): 481–508.

#### 15

#### The Logic of American Nuclear Strategy

Guest speaker: Matthew Kroenig, Associate Professor of Government, Georgetown University

Read more about Prof. Kroenig here.

#### Required:

Matthew Kroenig. 2013. "Think Again: American Nuclear Disarmament." Foreign Policy.

<u>Jeffrey Lewis. 2008. "Minimum Deterrence."</u> Bulletin of the Atomic Scientists 64(3): 38–41.

# Optional:

Matthew Kroenig. 2013. "Nuclear Superiority and the Balance of Resolve." *International Organization* 67(1): 141–171.

Tuesday	Thursday
March 20	22
Nuclear terrorism	Responding to a nuclear attack
** Quiz 5 closes at 12pm **	Guest speaker: Michael Gerber, Redflash Group
Required:	Required:
Matthew Bunn, Martin B. Malin, Nickolas Roth, and William H. Tobey. 2016. Preventing Nuclear Terrorism: Continuous Improvement or Dangerous Decline?, Executive Summary, pgs. i—	Garrett M. Graff. 2018. "Minutes to Live: When the Nuclear Push Alert Is Not a Mistake."  Esquire.
ix.  Keir A. Lieber and Daryl G. Press. 2013. "Why States Won't Give Nuclear Weapons to	John Hersey. 1946. "Hiroshima." The New Yorker. **Warning: This is a tough one to get through. Skim as much as you're able.
Terrorists." <i>International Security</i> 38(1): 80–104.	Optional:
Optional:	Irwin Redlener. "How to survive a nuclear attack." TED Talk.
Michael Bronner. 2008. "100 Grams (and Counting): Notes from the Nuclear Underworld." Belfer Center for Science and International Security.	
John Mueller. 2008. "The Atomic Terrorist: Assessing the Likelihood." Working Paper.	

Tuesday	Thursday
27	29
Command and (lack of) control	South Asia's Nuclear Dynamics
** <b>Quiz 6 closes at 12pm</b> **  Required:	Guest speaker: Sameer Lalwani, Senior Associate and Co-Director of the South Asia Program, Stimon Center
Watch documentary Command and Control	Read more about Dr. Lalwani here.
(2017) on Netflix or listen to "Human Error in Volatile Situations." 2017. This American Life,	Required:
Prologue and Act 1.  President's Foreign Intelligence Advisory Board.  1990. "The Soviet 'War Scare." Executive summary, pgs. v–xiii.	S. Paul Kapur. 2005. "India and Pakistan's Unstable Peace: Why Nuclear South Asia Is Not like Cold War Europe." International Security 30(2): 127–152.
Optional: Listen to "Buttons Not Buttons." 2014. Radiolab, starting at 17:30.	Sameer Lalwani. 2015. "Pakistan's Shocking Strategic Shift." The National Interest.  Optional:
	Vipin Narang. 2009/2010. "Posturing for Peace? Pakistan's Nuclear Postures and South Asian Stability." <i>International Security</i> 34(3): 38–78.

Tuesday	Thursday
April 3 'Paper Tiger' and 'Real Tiger': Making Sense of China's Nuclear Policy	5 Missiles and missile defense
** Quiz 7 closes at 12pm ** Guest speaker: Hongyu Zhang, Visiting Assistant Professor of Government, College of William & Mary Read more about Prof. Zhang here.	Required:  Jonathan Masters. 2014. "Ballistic Missile Defense Backgrounder." Council on Foreign Relations.  Skim Ballistic and Cruise Missile Threat. 2017. NASIC.
Required: Yao Yunzhu. 2010. "China's Perspective on Nuclear Deterrence." Air and Space Power Journal 24(1): 27–30.  M. Taylor Fravel and Evan S. Medeiros. 2010. "China's Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure." International Security 35(2): 48–87.  Pan Zhengqiang. 2016. "China's No First Use of Nuclear Weapons." In Li Bin and Zhao Tong, Understanding Chinese Nuclear Thinking, Chapter 2, pgs. 51–77.	Missiles and Other WMD Delivery Systems. NTI Tutorial.  Optional:  Simon A. Mettler and Dan Reiter. 2013.  "Ballistic Missiles and International Conflict."  Journal of Conflict Resolution 57(5): 854–880.

Tuesday	Thursday
10 Dealing with a Nuclear North Korea	12 The Humanitarian Turn in Disarmament
** Quiz 8 closes at 12pm **  Guest speaker: Mitchell Reiss, President and CEO, Colonial Williamsburg Foundation	Guest speaker: Rebecca Gibbons, Visiting Assistant Professor of Government and Legal Studies, Bowdoin College  Read more about Prof. Gibbons here.
Required:  Max Fisher. 2018. "7 Big Things to Understand About Trump's Talks with North Korea." New York Times.	Required: <u>Berit Reiss-Anderson. 2017. "Nobel Peace Prize Award Ceremony Speech."</u>
Bruce Jones. 2017. "Averting Catastrophe: US Policy Options for North Korea." Brookings Institution.	Beatrice Fihn and Setsuko Thurlow. 2017.  "International Campaign to Abolish Nuclear Weapons – Nobel Lecture."
Jonathan D. Pollack. 2018. "North Korea's Nuclear and Missile Programs: Strategies, Directions, and Prospects." Brookings Institution Conference Paper.  Evans J.R. Revere. 2018. "Endgame: A reflection on US strategic choices and the North	George Perkovich and James M. Acton. 2009.  "Rebutting the standard arguments against disarmament." Bulletin of the Atomic Scientists.  Josef Joffe and James W. Davis. 2011. "Less Than Zero: Bursting the New Disarmament Bubble." Foreign Affairs 90(1): 7–13.
Korean threat." Brookings Institution Conference Paper.	Optional: Tom Sauer and Joelien Pretorius. 2014.
Optional: Check out <u>38 North</u> for current analysis of North Korea	"Nuclear Weapons and the Humanitarian Approach." Global Change, Peace & Security 26(3): 233–250.
Mitchell Reiss. 1995. Bridled Ambition: Why Countries Constrain their Nuclear Capabilities. Washington, DC: Woodrow Wilson Center Press, Ch. 6.	
Jonathan Pollack. No Exit: North Korea and International Security. London: Routledge.	

Tuesday	Thursday
April 17	19
Norms of Nuclear Non-Use	Scenarios for Nuclear Use
** Quiz 9 closes at 12pm **	Guest speaker: Lynn Davis, Senior Fellow, RAND Corporation
Required:	Read more about Dr. Davis here.
Nina Tannenwald. 1999. "The Nuclear Taboo: The United States and the Normative Basis for Nuclear Non-Use." International Organization 53(3): 433–468.	Required: <u>Vipin Narang. 2017. "Why Kim Jong Un</u> <u>wouldn't be irrational to use a nuclear bomb</u> <u>first." Washington Post.</u>
Scott D. Sagan and Benjamin A. Valentino. 2017. "Revisiting Hiroshima in Iran: What Americans Really Think about Using Nuclear Weapons and Killing Noncombatants."	Bruce W. Bennett. 2014. "On US Preparedness for Limited Nuclear War." In On Limited War in the 21st Century.
International Security 42(1): 41–79.	Optional:
Optional:	Listen to: "Russian Nuclear Doctrine and Escalation." 2018. Arms Control Wonk Podcast.
Paul C. Avey. 2015. "Who's Afraid of the Bomb? The Role of Nuclear Non-Use Norms in Confrontations between Nuclear and Non-Nuclear Opponents." Security Studies 24(4): 563–595.	
24 Cross-Domain Deterrence and Nuclear Weapons	26 Wrapping up: What do we know about Nuclear Politics?
** Quiz 10 closes at 12pm **	** Last day to turn in response papers **
Required:	No required readings
Jon R. Lindsay and Erik Gartzke. "Cross- Domain Deterrence as a Practical Problem and a Theoretical Concept." <i>Draft Chapter</i> .	
Finals	
	May 3 No in-class final exam ** Policy Memo due by 10pm **