INTL 8273: NUCLEAR HISTORY AND SECURITY POLICY

Spring 2017
Thursdays, 12:30-3:15PM, Park Hall 225

Dr. Sara Z. Kutchesfahani: szk@uga.edu
Holmes/Hunter Academic Building: Room 120B

COURSE DESCRIPTION:

This course introduces students to major themes and debates in the contemporary study of nuclear security, from a historical and international perspective. Nuclear policy is a vast subject area; consequently, students will be introduced to most aspects of nuclear policy throughout the semester. The most substantive part of the course will be a week-by-week historical overview of each decade from 1940 until the present day.

Upon conclusion of the course, students should be able to:

- Have a good overview of the literature in contemporary nuclear security policy
- Be familiar with the main issues confronting contemporary policy-makers in the field of nuclear security policy
- Be equipped to conduct independent research in these issues and debates.

TOPICAL OUTLINE FOR THE COURSE:

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. A detailed course schedule and reading assignments can be found in the following pages, but a topical outline for the course includes lectures on the following:

1. Understanding what motivates states to proliferate
2. Understanding what motivates states to not proliferate
3. Nuclear deterrence – its origins and importance in nuclear strategy
4. Nuclear disarmament
5. Nuclear security
6. The Manhattan Project
7. Atoms for Peace, the IAEA, the NPT
8. Scientists' role in nuclear non-proliferation policy
9. The end of the Cold War
10. Current nuclear proliferation challenges

REQUIRED READINGS:

This course is reading intensive, with approximately 75-100 pages of required readings per week. Students should aim to spend **around three hours reading for the class each week**, which is enough to read at least four chapters and articles. Class readings will consist of a selection of current analytical articles, reports, and chapters (listed below).

Students will also be expected to read supplemental materials listed for each class, as well as regularly browse online resources – all of which students can sign up for free e-alerts – such as Carnegie Endowment for International Peace Proliferation News (http://carnegieendowment.org/programs/npp/), Arms Control Association (https://www.armscontrol.org), Federation of American Scientists (http://www.fas.org), and Bulletin of the Atomic Scientists (http://thebulletin.org). In addition, students will be expected to keep up to date with current global affairs through the reading of international newspapers (e.g., The New York Times, The Wall Street Journal, The Financial Times, The Guardian, etc.), magazines (e.g., The Economist, The New Yorker, Time, etc.), and relevant journals, including *Arms Control Today, Bulletin of The Atomic Scientists, Foreign Affairs, Foreign Policy, International Security, The Nonproliferation Review.* Reading from these outlets will facilitate class discussion and enhance understanding of the topics covered in class.

Students are not expected to read everything on the list, but are expected to have done some reading each week and come prepared to discuss the issues raised from what they have read with others in the class.

GRADING:

The course is assessed by:

1. Policy Briefs (30%)
Students will write 3 policy briefs that address a contemporary (for the first brief) and historical (for the second and third briefs) nuclear policy challenge – there are many from which to choose. These 2-3 pagers should (1) outline the scope of the issue, (2) discuss policy options, (3) assess international implications, and (4) offer policy recommendations with justification. Students may select any nuclear-related policy issue as long as it has an international/global dimension. The first brief must be of a contemporary nuclear policy challenge, and **is due in class on Thursday, February 2**. The second and third briefs must be of a historical nuclear policy challenge: the second brief **is due in class on Thursday, March 16**; the third brief **is due in class on Thursday, April 6**. **Late submission of any of the briefs will result in a grade of zero for this assessment.**

2. Seminar Presentation (30%)
Presentations should be approximately 25-30 minutes long and should raise clear questions for debate and discussion. Presentations should not summarise the readings, but rather raise topics for discussion. Effective presentations will end with questions for further discussion. **Powerpoint presentations must be emailed to me (szk@uga.edu) NO LATER THAN 09:00AM Eastern Time on the day of your presentation. Late submission will result in a grade of zero for this assessment.**

3. Movie Review (15%)
Students will write a 2-page review of the film *Dr. Strangelove or, How I Learned to Stop Worrying and Love the Bomb*, which we will watch in class on February 23. In the review, students need to answer the following question: Is *Dr. Strangelove* fact, fiction, or Soviet propaganda? Students are expected to pick one of these three descriptions in arguing their case. **This review must be emailed to me NO LATER THAN 09:00AM Eastern Time on Thursday,**

March 2, since we will be engaging in a class discussion on that day. Late submission will result in a grade of zero for this assessment.

4. Class Participation (15%)
Active class participation is required. Students who are not presenting will be expected to keep up with the readings and to participate actively in the discussions. **All students will be required to come to class each week with one question to pose to the rest of the group about the week's topic. This question must be emailed to me by 9AM of the day of the class. Failure to do so will result in a grade of zero for this assessment.**

5. Ideas on preserving nuclear history (10%)
Students will propose 3-4 ideas on what needs to be done to "preserve" nuclear history. **These ideas must be emailed to me NO LATER THAN 09:00AM Eastern Time on Thursday, April 20, since we will be engaging in a class discussion on that day. Late submission will result in a grade of zero for this assessment.**

DEADLINES:
These deadlines are absolute – **NO EXTENSIONS ARE GIVEN**. Failure to turn in the assignments by the due date will result in a grade of zero for that assignment. In order to avoid a penalty for late submission, you must have evidence of extenuating circumstances (e.g., a doctor's note for illness). This must be submitted to the course instructor prior to the time of the deadline.

Regular attendance is expected. 2 unexcused absences will be permitted, but the instructor must be notified of each absence ahead of class. ½ final letter grade penalty will incur for each additional unexcused absence. Valid excuses include illness (doctor's note required) and family emergencies.

Punctuality to class is a must. If you have a situation where you will be habitually late, please notify the instructor as soon as possible. Repeat latecomers will incur a ½ final letter grade penalty.

No computer use during class. You must silence, and put away, any and all wireless devices you bring to class.

I will use the 100-point grading system. Students will receive a letter grade for their final grade according to the following cutoffs:
A≥93; A- ≥90; B+ ≥87; B ≥83; B- ≥80; C+ ≥76; C ≥70; C- ≥68; D ≥60; F <60

OFFICE HOURS:
My office is 120B Holmes/Hunter Academic Building. Office hours are by appointment. Please e-mail me for an appointment at szk@uga.edu.

ACADEMIC HONESTY POLICY:
As a University of Georgia student, you have agreed to follow the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards contained in "A Culture of Honesty" found at: http://ovpi.uga.edu/academic-honesty/academic-honesty-policy. Lack of knowledge of the academic honesty policy is not a

reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

RETURN OF GRADED ASSIGNMENTS

The aim is to return graded assignments within 2 weeks after the submission date. Papers will be returned to you with an indicative letter grade, ranging from A-F. **ONCE A GRADE IS AWARDED**, **UNDER NO CIRCUMSTANCE WILL IT BE CHANGED.**

Course Schedule and Deadlines

DATE	TOPIC	DEADLINES
January 5	Introduction and class overview	
January 12	**Nuclear Themes:** Why do states proliferate?	
January 19	**Nuclear Themes:** Why don't states proliferate?	
January 26	**Nuclear Debate:** Nuclear deterrence vs. nuclear disarmament	
February 2	**Nuclear Themes:** Nuclear security	**Policy brief #1 is due**
February 9	**Nuclear History:** The 1940s: The Manhattan Project	
February 16	**Nuclear History:** The 1950s: Atoms for Peace, IAEA, NPT	
February 23	**Nuclear Movie Screening:** *Dr. Strangelove or, How I Learned to Stop Worrying and Love the Bomb* (Dir.: Stanley Kubrick, 1964)	
March 2	**Class Discussion:** Is *Dr. Strangelove* fact, fiction, or Soviet propaganda?	**Movie review is due by 9AM**
SPRING BREAK: March 6-10		
March 16	**Nuclear History:** The 1960s and 1970s: Scientist Splinter Groups and their role in nuclear non-proliferation policy	**Historical Policy brief #2 is due**
March 23	**Nuclear History:** The 1980s: The end of the Cold War	
March 30	**Nuclear Debate:** Was the 1990s a good or bad decade for nuclear non-proliferation?	
April 6	**Class Discussion:** 21st Century nuclear non-proliferation issues	**Historical Policy brief #3 is due**
April 13	**Nuclear Debate:** 2045: More nuclear weapons state or zero nuclear weapon states?	
April 20	**Class Discussion:** What needs to be done to "preserve" nuclear history?	**Proposed ideas are due by 9AM**

READING ASSIGNMENTS:

Week 1 (January 5): Introduction and Class Overview

- Please read the syllabus and come to week 1's class with any questions you may have about the syllabus and/or the class. Also come prepared to say which side of the debate you would like to be on in week 4 (January 26), week 12 (March 30), and week 14 (April 13).

Week 2 (January 12): Why do States Proliferate?

- Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security* 21 (3), Winter 1996/97: pp. 54-86.

- Scott Sagan and Kenneth Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, New York: W. W. Norton, 2003: pp. 3-87.
- Tanya Ogilvie-White, "Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate," *The Nonproliferation Review* 4 (1), Fall 1996: pp.43-60.
- Jacques E. C. Hymans, "Theories of Nuclear Proliferation: The State of the Field," *The Nonproliferation Review* 13 (3), 2006: pp. 455-465.

Week 3 (January 19): Why don't States Proliferate?

- Ariel E. Levite, "Never Say Never: Nuclear Reversal Revisited," *International Security* 27 (3), Winter 2002/2003: pp. 59-88.
- Etel Solingen, "The Political Economy of Nuclear Restraint," *International Security* 19 (2), Fall 1994: pp. 126-169.
- Harald Müller and Andreas Schmidt, "The Little Known Story of De-Proliferation: Why States Give Up Nuclear Weapons Activities," in William C. Potter, ed. (with Gaukhar Mukhatzhanova) *Forecasting Nuclear Proliferation in the 21st Century: Volume I: The Role of Theory*, Stanford, CA: Stanford University Press, 2010.
- T.V. Paul, *Power Versus Prudence: Why Nations Forgo Nuclear Weapons*, Montreal and Kingston: McGill-Queen's University Press, 2000.
- Maria Rost Rublee, *Nonproliferation Norms: Why States Choose Nuclear Restraint*, Athens, Georgia: The University of Georgia Press, 2009.

Week 4 (January 26): Nuclear Deterrence vs. Nuclear Disarmament Debate
Nuclear Deterrence Literature:

- Robert Powell, "Nuclear Deterrence Theory, Nuclear Proliferation, and National Missile Defense," *International Security* 27 (4), Spring 2003: pp. 86-118.
- Lawrence Freedman, *Deterrence*, Cambridge, Polity Press, 2004.
- John J. Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72 (3), 1993: pp. 50-66.
- Steven E. Miller, "The Case Against a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72 (3), 1993: pp. 67-80.
- Devin T. Hagerty, "Nuclear Deterrence in South Asia: The 1990 Indo-Pakistani Crisis," *International Security* 20 (3), Winter 1995-1996: pp. 79-114.
- Morton A. Kaplan, "The Calculus of Nuclear Deterrence," *World Politics* 11 (1), 1958: pp. 20-43.

Nuclear Disarmament Literature:

- George P. Schultz, William J. Perry, Henry A. Kissinger and Sam Nunn, "A World Free of Nuclear Weapons," *The Wall Street Journal*, January 4, 2007. (**Read their subsequent WSJ op-eds)**
- Margaret Beckett, "A World Free of Nuclear Weapons?" Keynote speech at The Carnegie International Nonproliferation Conference, Washington, D.C., June 25, 2007: http://carnegieendowment.org/files/keynote.pdf
- Harold Brown and John Deutch, "The Nuclear Disarmament Fantasy," *The Wall Street Journal*, November 19, 2007.
- Global Zero Action Plan, February 2010: http://www.globalzero.org/files/gzap_6.0.pdf
- Ivo Daalder and Jan Lodal, "The Logic of Zero: Toward a World Without Nuclear Weapons," *Foreign Affairs* 87 (6), 2008: pp. 80-95.

- Bruno Tertrais, "The Illogic of Zero," *The Washington Quarterly* 33 (2), 2010: pp. 125-138.
- John Mueller, "The Essential Irrelevance of Nuclear Weapons: Stability in the Postwar World," *International Security*, 13 (2), 1988: pp. 55-79.

Week 5 (February 2): Nuclear Security

- IAEA Nuclear Security Series Publications: http://www-ns.iaea.org/security/nss-publications.asp
- Nuclear Security Summit Communiqués (Washington 2010; Seoul 2012; The Hague 2014)
- George Perkovich, Jessica Mathews, Joseph Cirincione, Rose Gottemoeller and Jon Wolfstahl, *Universal Compliance: A Strategy for Nuclear Security*, Washington DC: Carnegie Endowment for International Peace, 2003: http://carnegieendowment.org/2007/06/20/universal-compliance-strategy-for-nuclear-securitywith-2007-report-card-on-progress/225
- James E. Doyle, "Eyes on the Prize: A Strategy for Enhancing Global Security," Carnegie Endowment for International Peace, 2009: http://carnegieendowment.org/files/Doyle.pdf

Week 6 (February 9): The 1940s: The Manhattan Project

- Select articles from *Bulletin of the Atomic Scientists* 41 (7), 1945-1985 40th Anniversary Issue, August 1985.
- Michael M. May, "A View from the Weapons Lab," *Bulletin of the Atomic Scientists* 41 (6), June 1985: pp. 8-10.
- Norbert Wiener, "Moral Reflections of a Mathematician," *Bulletin of the Atomic Scientists* 12 (2), February 1956: pp. 53-57

Week 7 (February 16): The 1950s: Atoms for Peace, the IAEA, the NPT

- Text of the Baruch Plan, Presented to the United Nations Atomic Energy Commission, June 14, 1946: http://www.atomicarchive.com/Docs/Deterrence/BaruchPlan.shtml
- Acheson-Lilienthal Report: http://www.learnworld.com/ZNW/LWText.Acheson-Lilienthal.html
- President Eisenhower's "Atoms for Peace" Speech, Before the General Assembly of the United Nations on Peaceful Uses of Atomic Energy, December 8, 1953: http://www.atomicarchive.com/Docs/Deterrence/Atomsforpeace.shtml
- G. Robert Keepin, "Nuclear Safeguards: A Global Issue," *Los Alamos Science* 1, Summer 1980: pp. 68-86: http://permalink.lanl.gov/object/tr?what=info:lanl-repo/lareport/LA-UR-80-5028
- David Fischer, "Nuclear Safeguards: The First Steps," IAEA Bulletin 49 (1), 2007: https://www.iaea.org/sites/default/files/publications/magazines/bulletin/bull49-1/49103480711.pdf
- IAEA Safeguards: Stemming the Spread of Nuclear Weapons, IAEA Information Series, Division of Public Information, 2002: https://www.iaea.org/sites/default/files/S1_Safeguards.pdf
- George Bunn, "The Nuclear Nonproliferation Treaty: History and Current Problems," *Arms Control Today*, 2003: http://www.armscontrol.org/act/2003_12/Bunn?print
- Joseph S. Nye Jr., "NPT: The Logic of Inequality," *Foreign Policy* 59, 1985: pp. 123-131.

Week 8 (February 23): Nuclear Movie Screening: *Dr. Strangelove or, How I Learned to Stop Worrying and Love the Bomb*

- No reading assignment.

Week 9 (March 2): Class Discussion: Is *Dr. Strangelove* fact, fiction, or Soviet propaganda?

- Come to class to discuss your opinions on the film.

Week 10 (March 16): The 1960s and 1970s: Scientist Splinter Groups and their role in nuclear non-proliferation policy

- The Russell-Einstein Manifesto, Issued in London, July 9, 1955: http://www.pugwash.org/about/manifesto.htm
- *Bulletin of the Atomic Scientists* 41 (7), "1945-1985: 40th Anniversary Issue," August 1985.
- Joseph Rotblat, "The Early Days of Pugwash," Physics Today 54 (6), 2001: pp. 50-55.
- Eugene Rabinowitch, "International Cooperation of Atomic Scientists," *Bulletin of the Atomic Scientists* 12 (2), February 1956: pp. 34-40, continued on p. 61.
- "An Appeal by American Scientists to the Governments and People of the World," *Bulletin of the Atomic Scientists* 13 (7), September 1957: pp. 264-266.
- Bertrand Russell, "World Conference of Scientists," *Bulletin of the Atomic Scientists* 12 (2), February 1956: pp. 41-45.
- A. P. Vinogradov, "Prospects for the Pugwash Movement," *Bulletin of the Atomic Scientists* 15 (9), November 1959: pp. 376-378.
- Eugene Rabinowitch, "Pugwash – History and Outlook," *Bulletin of the Atomic Scientists* 13 (7), September 1957: pp. 243-248.
- Sig Hecker, "Adventures in Scientific Nuclear Diplomacy," *Physics Today* 64 (7), July 2011: pp. 31-37.
- Emanuel Adler, "The Emergence of Cooperation: National Epistemic Communities and the International Evolution of the Idea of Nuclear Arms Control," *International Organization* 46 (1), 1992: pp. 101-145.
- Harry S. Hall, "Scientists and Politicians," *Bulletin of the Atomic Scientists* 12 (2), February 1956: pp. 46-52.
- Kai-Henrik Barth, "Catalysts of Change: Scientists as Transnational Arms Control Advocates in the 1980s," *OSIRIS* 21 (1), 2006: pp. 182-206.
- Bernd W. Kubbig, "Communicators in the Cold War: The Pugwash Conferences, the U.S.-Soviet Study Group and the ABM Treaty. Natural Scientists as Political Actors. Historical Success and Lessons for the Future," *PRIF Report* 44/1996: http://edoc.vifapol.de/opus/volltexte/2008/289/pdf/prifrep44.pdf

Week 11 (March 23): The 1980s: The end of the Cold War

- William C. Potter, *The Politics of Nuclear Renunciation: The Cases of Belarus, Kazakhstan, and Ukraine*, Occasional Paper No.22, 1995. Washington D.C.: Henry L. Stimson Center.
- Paul I. Bernstein and Jason D. Wood, *The Origins of Nunn-Lugar and Cooperative Threat Reduction*, Center for the Study of Weapons of Mass Destruction, Case Study 3. Washington, D.C.: National Defense University Press, 2010: http://ndupress.ndu.edu/Portals/68/Documents/casestudies/CSWMD_CaseStudy-3.pdf
- William Walker, "Nuclear Weapons and the Former Soviet Republics," *International Affairs* 68 (2) 1992: pp. 255-277.

Week 12 (March 30): Nuclear Debate: Was the 1990s a good or bad decade for nuclear non-proliferation?

- Alexander H. Montgomery, "Ringing in Proliferation: How to Dismantle an Atomic Bomb Network," *International Security* 30 (2), Fall 2005: pp. 153-187.
- Waldo Stumpf, "South Africa's Nuclear Weapons Program: From Deterrence to Dismantlement," *Arms Control Today* 25 (10), 1995/1996: pp. 3-8.
- David Albright and Corey Hinderstein, "Unraveling the A.Q. Khan and Future Proliferation Networks," *The Washington Quarterly* 28 (2), 2005: pp. 109-128.
- Strobe Talbott, "Dealing with the Bomb in South Asia," Foreign Affairs 78 (2), 1999: pp. 110-122.
- Chaim Braun and Christopher F. Chyba, "Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime," *International Security* 29 (2), Fall 2004: pp. 5-49.

Week 13 (April 6): Class Discussion: 21st Century nuclear non-proliferation issues

- Steven Miller, "Until the Sun Grows Cold: Persisting Nuclear Dangers in a Complacent World," in Jeffrey Boutwell ed., *Addressing the Nuclear Weapons Threat: The Russell-Einstein Manifesto Fifty Years On*, Pugwash Occasional Papers 4 (1), December 2005: pp. 17-34: http://belfercenter.hks.harvard.edu/files/millerreessay.pdf
- Sigfried S. Hecker, "Extraordinary Visits: Lessons Learned from Engaging with North Korea," *The Nonproliferation Review* 18 (2), 2011: pp. 445-455.
- Tanya Ogilvie-White, "The Defiant States: The Nuclear Diplomacy of North Korea and Iran," *The Nonproliferation Review* 17 (1), 2010: pp. 115-138.
- John Simpson, "The Nuclear Non-Proliferation Regime: Back to the Future?" *Disarmament Forum* 1, 2004: pp. 5-16: http://core.ac.uk/download/pdf/30541.pdf

Week 14 (April 13): Nuclear Debate: 2045: More nuclear weapon states vs. zero nuclear weapon states

- Based on historical trends and trajectories, which of the two scenarios are most likely to happen by 2045?

Week 15 (April 20): Class Discussion: What needs to be done to "preserve" nuclear history?

- Come to class to discuss your ideas.