Politics of Nuclear Weapons (IR522)
Tuesdays & Thursdays, 12:30 – 1:45 PM, CAS 324

Professor Jayita Sarkar
she/her/hers

Office Hours: Tuesdays & Thursdays, 2:30-4:00 PM
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COURSE DESCRIPTION
What are the causes and consequences of nuclear weapons and their related technologies? How are nuclear technologies, equipment and materials managed at the international, regional and national levels? What is the ‘global atomic marketplace’ and how can it be controlled to contain proliferation threats? What are the tools of nonproliferation and counterproliferation that have been adopted by the United States and its allies? What policy lessons can be derived from those past policies? How has radioactive poisoning from nuclear tests, nuclear facilities and accidents affected lives, and how effective have mitigation and redressal been? These are some of the questions that this course will examine.

COURSE PRE-REQUISITES
IR 271/PO 171 or IR 374 or graduate standing or permission of the instructor and First-Year Writing Seminar (e.g., WR 100 or WR 120).

LEARNING OUTCOMES
By the end of this course, students will achieve the following course learning outcomes:

• Demonstrate a strong basis of knowledge of the politics, history and technologies surrounding nuclear weapons and nuclear energy.
• Demonstrate an understanding of dominant explanations for nuclear proliferation, nonproliferation, nuclear trade and nuclear latency.
• Demonstrate the ability to do historical research and analysis, including the use of primary sources.
• Develop the ability to effectively collaborate within and across teams with a problem-solving approach toward contemporary security problems.

Course Hub Outcomes
HUB CAPACITY: Philosophical, Aesthetic and Historical Interpretation
AREA: Historical Consciousness
Students will routinely analyze primary source documents on nuclear proliferation, nonproliferation and nuclear crises cases from the Cold War era. These primary sources — textual documents, photographs and video clippings— will teach the students to identify various factors that influenced international politics in the nuclear domain. Students will learn to challenge the historical national narratives about nuclear weapons development in countries like India, Pakistan, Israel and South Africa, and nuclear
disaster management as in Ukraine (Chernobyl), Kazakhstan (Polygon test-site) and elsewhere. Students will determine the long-term trends that have influenced the global nonproliferation regime, notably the Nuclear Nonproliferation Treaty and the International Atomic Energy Agency.

HUB CAPACITY: Social & Scientific Inquiry  
AREA: Social Inquiry II  
Students will apply principles like nuclear deterrence, extended nuclear deterrence, security dilemma, balance of power, stability-instability paradox and others to address questions of contemporary international security problems in the nuclear domain. By applying the aforementioned principles, students will deepen their understanding of current and past international politics surrounding nuclear weapons and technologies. Students will critically evaluate the assigned readings and will be assessed on their ability to understand the representation of argument and evidence in the social sciences, and differentiate competing claims. See presentations under ‘class participation’ under ‘assignments.’

HUB CAPACITY: Communication  
AREA: Writing-Intensive Course  
Students will undertake two major and one minor writing assignments comprising 55% of their total grade. These are one policy memo (30%), two op-eds (30%= 15+15) and one response paper (10%) following the in-class simulation exercise. At the beginning of the semester, students will be trained on how to read effectively using Patrick Rael’s ‘Predatory Reading’ handout, and regular class discussions will focus on students’ analysis of the assigned readings. This way, the students will gradually develop an understanding and appreciation of critical judgment of the course materials. The policy memo assignment is ‘scaffolded,’ i.e. broken down into two steps allowing the students to obtain feedback on their early drafts before submitting the final memos. This assignment scaffolding technique will enable students to develop well-structured written arguments suitable to the situation, which in this case, is identifying a policy problem, devising policy options, and arguing in favor of one or a combination of two solutions with the aim to convince an imagined policymaker. The op-ed is also scaffolded because students will get guidelines to write the op-ed, receive detailed feedback on the first op-ed, which will enable them to improve their op-ed writing capabilities for the second op-ed. The op-ed assignment requires students to adopt an approach to writing that is different from a research paper in terms of intent, audience and hence, style. The instructor will circulate op-ed guidelines at the beginning of the semester, share op-ed samples for students to learn from, and offer writing advice during office hours. The instructor has successfully used op-eds in her courses (IR300 & IR377) during 2017-18. Students will learn how to effectively undertake this innovative assignment that can have a moderately high payoff as a market-ready skillset after graduation.

ACADEMIC HONESTY STATEMENT  
Students are responsible for understanding and following the provisions of the CAS Academic Conduct Code and Policies. Copies of the code are available here:  
- http://www.bu.edu/academics/policies/academic-conduct-code/
- GRS: http://www.bu.edu/cas/students/graduate/grs-forms-policies-procedures/academic-discipline-procedures/
Cases of misconduct must be reported to the Dean’s office. All class members are expected to maintain the highest standards of academic honesty and integrity. You are expected to provide citations in papers for all quotations, paraphrases, and ideas taken from any source other than your own original thoughts. Boston University has very strict standards for intellectual integrity, and punishment for plagiarism is severe, and can include permanent expulsion from the university.

**INSTRUCTIONAL FORMAT**

This course organized is around required weekly readings. Students are expected to come prepared with the required readings, and participate in class discussions. The instructor will lecture for half of the duration of each session. The other half is kept for class discussions. Occasionally, the instructor will circulate primary source material (i.e. declassified government document) relevant to the course content, and the students will examine this material during the session, and engage in class discussion. Please note that students are not required to come prepared with items mentioned under ‘additional/optional readings’. Additional readings are resources for students to use for writing their policy memo and op-ed assignments, as appropriate, for this course.

**BOOKS & COURSEWARE**

There are no required textbooks for this course. Readings are available through Blackboard. Students are only required to watch movies #3 and #4. The rest are optional.

1. The Day After Trinity, 1980
2. Hiroshima, 2005
3. Fail-Safe, 1964
4. *Dr. Strangelove*, 1964
5. The Battle of Chernobyl, 2006
7. Silkwood, 1983

All the movies in the above list are on reserve at Krasker Film/Video Service, located at the basement level of the BU Mugar Memorial Library.

**ASSIGNMENTS**

1. **Policy Memo (30%)**: Students are required to write a policy memo in which they will (a) identify a contemporary policy problem relevant to international nuclear politics, (b) identify appropriate government agencies or ministries (of any country with adequate justification), (c) offer a minimum of 3 and a maximum of 5 policy options, (d) identify one best option and provide a data-driven justification for it, and (e) offer contingency plans. The policy memo will be addressed to a top policymaker, and will be written keeping in mind official etiquette and political and socioeconomic realities in mind. This assignment is broken down into two steps in order to help students to obtain feedback on their writing and analysis. These two steps are explained below. **Policy memo guidelines will be circulated in class.**

   - All students will have a strict word limit for the policy memo of 2500 words.
• Graduate students will be required to submit a “background paper” of 2000 words demonstrating the research done for the policy memo. No draft submission is needed for the background paper.

a. Draft Memo (15%): Students will submit a draft memo by email during Week 5, which should be at least 75% complete. The policy scenario, main policy options and the data must be clearly identified. Students will receive feedback and guidance from the instructor on the memo at this stage. Students are required to meet me during office hours at this stage to obtain and discuss feedback.

b. Final Memo (15%): Students will submit the final policy memo during Week 9. No resubmission is permitted beyond this point.

2. Briefing Simulation (20%): On Week 10, there will be a briefing simulation on a regional nuclear deterrence. The simulation assignment will have two steps: first, preparation (role assignments, forming country delegations and research on the policy problem at hand) for effective participation in the simulation session, and second, a write-up of 700-750 words. The write up is due on Week 11. The total assignment is worth 20% and the two steps are worth 10% each.

3. Op-Ed (30%): Each student will write two op-eds of approximately 750 to 1000 words each on a contemporary policy question relevant to national and/or international nuclear politics. Writing op-eds is an important way to influence public opinion in contemporary world. It is an important skill that combines complex knowledge with the ability to lucidly draw in an informed but non-expert audience, and make an evidence-based compelling argument. The first op-ed (15 points) is due on Week 4. The second op-ed (15 points) is due on Week 14. Op-ed guidelines will be circulated in class.

• Undergraduate students will be allowed to write an op-ed of a maximum of 750 words.
• Graduate students will be allowed to write an op-ed of a no more than 1000 words.

4. Class Participation (20%): Regular attendance in class is mandatory but merely showing up to class will not suffice. In order to do well, do your readings prior to class, ask clarifying questions in and outside of class, and contribute to in-class discussions of the course content during class. Throughout the semester, each student will make team presentations on a chosen academic assigned reading (required or optional) for 10 minutes, which will be followed by a 5-minute Q&A by the entire class. Presentation (10%), participation in Q&A (10%), and regular attendance and in-class discussions (10%) will account for the 30%. Students will be briefed on how to read effectively through handouts like Patrick Rael’s ‘Predatory Reading’.

HOW TO SUCCEED IN THIS COURSE?

1. Professor's Office Hours
Research has shown that there is a positive correlation between office-hour visits by students and obtaining higher grades:
Office hours are for you to seek clarifications about course materials and assignments, brainstorm about career options, and develop mentorship connections, to name a few. I hold office hours for five hours every week from 2 to 4:30 PM on Tuesdays and Thursdays in my office. Make use of those office hours to ask about the ‘muddiest point’ in the lecture, connect history with policy, understand current nuclear issues, and any other burning question that you might have. What if you have class or you work during those times? Send me an email, and we will find a time and date to meet in my office outside of my office hours schedule. I have held office hours meetings via Skype in exceptional cases of student’s illness. So, reach out! To confirm our meeting, you just need to sign up here: https://jsarkar.youcanbook.me

2. Weekly “Mudcards”
At the end of the class each Thursday, each team will submit up to three ‘mudcards’ stating what the muddiest point was in the week’s discussion. This could be anything that was discussed during the class but for some reason was not clear. The content of the mudcards will be discussed on the Tuesday of the following week. This exercise will allow me to understand points of confusion and clarify these accordingly.

3. Writing Assistance
In order to do well in written assignments at BU, you might want to seek support of a writing tutor or coach on campus. This is especially if you are a non-native speaker of English. If you are a native speaker of English, your writing could exponentially improve through appropriate writing assistance. So, please make use of the existing resources on campus. The Education Resource Center (ERC) is located on 100 Bay State Road, and has a number of free resources: https://www.bu.edu/erc/writingassistance/

4. Citations
For all written assignments, use Chicago Manual of Style — Notes & Bibliography not Author-Date. http://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-1.html

5. Similarity Reports on ‘Turnitin’
For all written assignments, I will generate similarity reports to check for plagiarism. If plagiarism is found for any assignment, the grade for all three assignments (op-ed, policy memo, simulation write-up) will be a zero (i.e. 0 out of 70 of the final grade).

**Grading Criteria & Scale**
Explanation of grades and GPA at Boston University can be found by following this link: https://www.bu.edu/reg/academics/grades-gpa/

A  93 – 100
A-  90-92
B+  87-89
B   83-86
B-  80-82
C+  77-79
C   73-76
CLASS POLICIES

1) Course members’ responsibilities

• This is a screen-down class. So, laptops, cellphones and tablets are not permitted in class except on the week of simulation, and when doing team presentations.

• Students who need laptops for accommodation/accessibility purposes for note taking must contact the instructor with official notification from appropriate authority (see ‘Accessibility’).

• Students are expected to be punctual in class. Late arrivals will affect individual class participation grade.

• The instructor will respond to emails within 24 hours of receiving them, except on weekends. If the student is dissatisfied with their grade, please wait 48 hours from receiving the grade, and then meet the instructor.

2) Attendance & Absences

Students’ attendance in this class is mandatory. If a student cannot attend a session, they must email the instructor in advance in order to excuse themselves. Any more than two absences during the semester will result in a deduction in the participation grade by one letter grade. Students who must be absent from class for religious observance must notify the instructor as early as possible.

3) Assignment Completion & Making Up

All assignments must be submitted on Blackboard as a ‘Turnitin’ assignment by 5pm (Eastern Standard Time) on the day it is due. Late work without adequate justification will be penalized by one letter grade for that assignment. Students who will miss examinations for unforeseen factors or factors beyond their control must contact me with adequate justification as early as possible so that makeup assignments can be scheduled.

CAREERS IN THE NUCLEAR FIELD

I will be frequently posting advertisements for internships and jobs on Blackboard. If you are interested in a particular job in a government agency, think tank, nonprofit, or university, feel free to reach out to me. I enjoy mentoring future nuclear wonks! Keep an eye out for opportunities at the Carnegie Endowment’s Nuclear Policy Program, Stimson Center’s South Asia Program, Harvard’s Project on Managing the Atom, Wilson Center’s Nuclear Proliferation International History Project, CSIS PONI, IGCC at UC San Diego, US Department of Energy, UN Office on Disarmament Affairs, and the national weapons laboratories, like Los Alamos, Livermore and Sandia, among others.

STATEMENT ON ACCESSIBILITY

BU is committed to providing equal access to our coursework and programs to all students. In order to be sure that accommodations can be made in time for all exams and assignments, please plan to turn in your accommodations letter as soon as possible and no later than 14 days from the first exam/assignment. After you turn in your letter, please meet with the instructor to discuss the plan for accommodations so we can be sure that they are adequate and you are supported in your learning. If you have further questions or need additional support, please contact the Office of Disability Services (access@bu.edu).

Last updated: 05-03-2018
CAMPUS RESOURCES FOR STUDENTS IN DISTRESS
Please make use of BU resources to support yourself, friends and classmates when in distress: http://www.bu.edu/helpinfo/pdf/10102_SHS.pdf

DETAILS OF CLASS MEETINGS
PART I: Politics, History & Technologies
Week 1-3

WEEK 1
Sep. 3: Managing Weapons of Mass Destruction
Introductory lecture. Slides will be posted on Blackboard after lecture.

Sep. 5: The Manhattan Project
- Pre-World War II to the Manhattan Project
  - Podcast: Direct Current, US Department of Energy
    - S2E2, The Manhattan Project, Part I (entire episode)
      https://www.energy.gov/podcasts/direct-current-energygov-podcast/s2-e2-manhattan-project-part-1
  - Optional documentary: The Day After Trinity (1980)

WEEK 2
Sep. 10: Atomic Bombings of Japan
- Atomic Bombings of Japan
  - Podcast: Direct Current, US Department of Energy
    - S2E3, The Manhattan Project, Part II (until 19:33)
      https://www.energy.gov/podcasts/direct-current-energygov-podcast/s2-e3-manhattan-project-part-2
  - Wellerstein, Alex. “Nagasaki: The Last Bomb,” New Yorker, 7 August 2015
  - Optional documentary: Hiroshima (2005)

Optional

Sep. 12: The Impact of Nuclear Weapons on Foreign Policies
- Dissuasion, Deterrence and Compellence
- U.S. Nuclear Posture Reviews
  - Executive summaries of Nuclear Posture Reviews 2010 & 2018
- Arms Race
  - Dr. Seuss, “The Butter Battle Book” (Random House, NY, 1984)
- Fissile Materials & Significant Quantity
  - Nuclear 101: How do Nuclear Weapons Work? Parts 1 & 2 by Matthew Bunn
    - https://www.youtube.com/watch?v=VtQOhxb1Me
    - https://www.youtube.com/watch?v=MnW7DezJib0
WEEK 3

Sep. 17: Demand & Supply Sides of Proliferation
- Horizontal vs. Vertical Proliferation
- Proliferation Optimism vs. Proliferation Pessimism
- Sagan-Waltz Debate
- Supply Side Logics & Outcomes
- Sagan’s Three Models & Solingen’s Nuclear Logics

Sep. 19: The N+1 problem of Nonproliferation
- Global Atomic Marketplace
  - President Eisenhower’s Speech at UN General Assembly, 8 Dec. 1953
- Nuclear Reversal & Denuclearization

PART II: Managing Risks

Week 4-6

WEEK 4

Sep. 24: Proliferation Cascades
- Proliferation Cascades & Intelligence Assessments
  - National Intelligence Estimate No. 4-2-64, October 1964
- Nuclear Domino Theory

Sep. 26: Nonproliferation & Counterproliferation
- Multilateral Institutions & Treaties
- Carrots: Umbrellas, Guns, Money
- Sticks: Sanctions, Threats, Preemptive Strikes, Aid Withholding, Sabotage
- Technological Diversion

*Op-Ed #1 due by 5pm on the last day of class*
WEEK 5

Oct. 1: International Institutions: IAEA

Oct. 3: International Treaty Mechanism: NPT

*Draft Policy Memo due by 5 pm by email*

WEEK 6

Oct. 8: International Trade: NSG, UNSCR 1540, PSI

Oct. 10: Nuclear Crises: 1962 Cuban Missile Crisis & 1983 Able Archer

PART III: Crises & Proliferation
WEEKS 7-11

WEEK 7

Oct. 15: Denuclearization: Iraq and Libya
    ▪ Introduction

Oct. 17: Decoupling and Denuclearization: Japan, South Korea, North Korea
    ▪ Chapter 4
    ▪ Chapter 5
  ○ Lewis, Jeffrey. “Imagining Nuclear War with North Korea,” The Economist, Aug. 9, 2018.
WEEK 8

Oct. 22: Proliferation Cascade in Asia: China, India, Pakistan


Oct. 24: The A.Q. Khan Network

  - Chapter 7: Mastery of Uranium Enrichment
  - Chapter 8: Procurement Network in the Grey Market


* Final Policy Memo due by 5 pm on Blackboard as Turnitin Assignment

WEEK 9

Oct. 29: Deterrence Stability in South Asia: India-Pakistan-China

- Nuclear South Asia, online Stimson Center course videos will be used. Handouts will be circulated

Oct. 31: *Simulation Day – in-class event

- Deterrence Stability in Action: Crisis Scenario Briefing Simulation

More documents will be circulated earlier in the week

WEEK 10

Nov. 5: Iran’s Nuclear Program since the 1970s


Nov. 7: Iran Nuclear Deal


- Belfer Center’s “The Iran Deal: A Definitive Guide,” p. 1-16:
  http://belfercenter.kgs.harvard.edu/files/IranDealDefinitiveGuide.pdf?webSyncID=e36797e7-3cdd-2173-817e-40ea38922388&sessionGUID=29e3007-d04b-2c7d-5030-ba01cedd259
WEEK 11

Nov. 12: FBI & Counterproliferation
*Simulation Write-Up due by 5pm on Blackboard as Turnitin Assignment*

Nov. 14: Israel & Counterproliferation
- TBD

PART IV: Consequences & Oppositions
Weeks 12-14

WEEK 12

Nov. 19: America’s Missile Heartland
  - Introduction
  - Chapter 5: Nuclear Heartland
Optional movie: Command & Control (2016)

Nov. 21: Radioactive Poisoning: Its History
  - Chapter 6: A History of Invisibility

WEEK 13

Nov. 26: Radioactive Poisoning in the United States
  - Chapter 7: Hazards
  - Chapter 8: The Food Chain
Optional movie: Silkwood (1983)

Nov. 28: No class. Thanksgiving recess.

WEEK 14

Dec. 3: Radioactive Poisoning in the Former Soviet Union & South Africa
Dec. 5: Nuclear Accidents: Chernobyl & Fukushima


Optional movie: The Battle of Chernobyl, 2006

*Op-Ed #2 due by 5pm on the last day of class*