Frederick S. Pardee School of Global Studies, Boston University

**International Nuclear Politics**

IR315/ PO358/ HI335

Mondays, Wednesdays & Fridays, 1:25-2:15 PM in CAS 233

Professor Jayita Sarkar  
she/her/ hers

Office: 154 Bay State Road, #201A  
Email: jsarkar@bu.edu  
Office hours:  
Mondays & Wednesdays, 2:30- 4:00 PM [appointment mandatory through link below]  
https://jsarkar.youcanbook.me

This is a screen down class. No laptops, tablets, cellphones are allowed.

**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 historically 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 have effective has mitigation been? These are some of the questions that this course will examine. No background in nuclear issues is required for taking this course.

This course satisfies Historical Consciousness, Social Inquiry I, and Writing-Intensive Course.

**Pre-requisite:** First-Year Writing Seminar — WR 100 or WR 120.

**Study Tracks**

Foreign Policy & Security  
International Systems & World Order

**Course Hub Outcomes**

**HUB CAPACITY: Philosophical, Aesthetic and Historical Interpretation**

**AREA: Historical Consciousness**

In IR315/PO358/HI335, 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 I**

Students will identify and apply key concepts like alliance formation, security dilemma, extended nuclear deterrence, coercive diplomacy, preemptive war, and multilateral negotiations to current and past international politics surrounding nuclear weapons and technologies. Through an examination of how the institutions comprising the global nuclear nonproliferation regime operate, their strengths and weaknesses, and the risks and opportunities that they provide to individual member countries, students will develop a comprehensive understanding of the workings of these institutions, related multilateral governance networks and the role of technocratic and political leaders, who dominate them.

**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 (5%) 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 skill set after graduation.

**Course Learning Objectives**

By the end of this course, students will have achieved 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 to contemporary security problems.
**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, Course Pedagogy, & Approach to Learning**

This is a lecture course organized 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 to write their policy memo and op-ed assignments for this course.

**Books & Courseware**

There are no required textbooks for this course. There are required readings that will be made available to the students through Blackboard and course reserves at BU’s Mugar Library. Below is a list of movies/documentaries that students are required to watch as part of this course:

1. The Day After Trinity, 1980
2. Hiroshima, 2005
3. Fail-Safe, 1964
4. Dr. Strangelove, 1964
5. Chernobyl, HBO Series, 2019
7. Silkwood, 1983

**Assignments**

1. **Policy Memo (30 points):** 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 points):** 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 points):** Students will submit the final policy memo during Week 9. No resubmission is permitted beyond this point.

2. **Briefing Simulation (20 points):** On Week 9, 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 12. The total assignment is worth 15% and the two steps are worth 5% each.

3. **Op-Ed (30 points):** 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 points):** 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, student teams will make presentation 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%) and participation in Q&A and regular attendance and in-class discussions (10%) will account for the 20%. Students will be briefed on how to read effectively through handouts like Patrick Rael’s ‘Predatory Reading’.

**Extra Credit Opportunities (up to 5 points, to be added to class participation):**
Attending events at BU Pardee School: TBD
Stickers needed on Pardee Passport + Signature on sign-up sheet needed
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/

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<th>Course</th>
<th>Weight</th>
<th>Grade</th>
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<tr>
<td>Attendance and Participation</td>
<td>20% (10+10)</td>
<td>A 93 - 100</td>
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<tr>
<td>Simulation</td>
<td>20% (15+5)</td>
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<td>Policy Memo</td>
<td>30% (15+15)</td>
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<td>Op-Ed</td>
<td>30% (15+15)</td>
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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.

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).

**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](http://www.bu.edu/helpinfo/pdf/10102_SHS.pdf)

**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.

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**DETAILS OF CLASS MEETINGS**

**PART I: Politics, History & Technologies**

**Week 1**

**Jan. 22: Managing Weapons of Mass Destruction**

- No readings. The instructor will lecture. Slides will be posted on Blackboard after lecture.

**Jan. 24: Managing Weapons of Mass Destruction [continued]**

- Introductory lecture continued.

**WEEK 2**

**Jan. 27: 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](https://www.energy.gov/podcasts/direct-current-energygov-podcast/s2-e2-manhattan-project-part-1)
    - Optional documentary: The Day After Trinity (1980)

**Jan. 29: 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](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

*Op-Ed instructions given*
Jan. 31:
- **USG Documentary:** “The Effects of the Atomic Bomb on Hiroshima and Nagasaki,” 1946, [https://www.youtube.com/watch?v=QUvM2nQR1cA](https://www.youtube.com/watch?v=QUvM2nQR1cA)

Response paper on documentary & reading for 3 points of extra credit.

**WEEK 3**

Feb. 3: Nuclear Weapons in Popular Culture
- Arms Race: Dr. Seuss, “The Butter Battle Book” (Random House, NY, 1984) [https://www.youtube.com/watch?v=7kQ6Tj6Ra0k](https://www.youtube.com/watch?v=7kQ6Tj6Ra0k)

Response paper expected on the two readings: 3 points

Feb. 5: U.S. Nuclear Targeting

Feb. 7: U.S. Nuclear Use Today

Optional movie: Command & Control, 2016

*Sign-up sheet for group presentations on reading*

**WEEK 4**

Feb. 10: The Utility of Nuclear Weapons in Foreign Policies of Countries
- U.S. Nuclear Posture Reviews
  - Executive summaries of NPR 2010 & 2018

Feb. 12: How do Nuclear Weapons Work?
- Fissile Materials & Significant Quantity
- Nuclear 101: How do Nuclear Weapons Work? Part 1/2 by Matthew Bunn [https://www.youtube.com/watch?v=qV7bO5eb1Mc](https://www.youtube.com/watch?v=qV7bO5eb1Mc)
- Nuclear 101: How do Nuclear Weapons Work? Part 2/2 by Matthew Bunn [https://www.youtube.com/watch?v=MnW7Dx3fJb0](https://www.youtube.com/watch?v=MnW7Dx3fJb0)
Feb. 14: Nuclear Test Ban & International Law
    ▪ Chapter 4: The American Test Ban Debate
  o Ranganathan, Surabhi. “Nuclear Weapons and the Court,” American Journal of International

*Op-Ed #1 due by 5pm by Turnitin on Blackboard

WEEK 5
Feb. 17: Demand & Supply Sides of Proliferation
  o Miller, Nicholas L. "Why Nuclear Energy Programs Rarely Lead to Proliferation."
    International Security 42, no. 2 (Fall 2017): 40-77.

Feb. 19: Atoms for Peace & N+1 problem
  o President Eisenhower's Speech at UN General Assembly, 8 Dec. 1953.
  o Wohlstetter, Albert. Perspective on Nuclear Energy. Santa Monica, CA: RAND

Feb. 21: Proliferation Cascades & Intelligence Assessments
  o Miller, Nicholas L. "Nuclear Dominoes: A Self-Defeating Prophecy?". Security Studies 23, no. 1
    (2014): 33-73
  o National Intelligence Estimate No. 4-2-64, October 1964
  o CIA Research Memo, “Managing Nuclear Proliferation: The Politics of Limited Choice,”
    1975.

WEEK 6
Feb. 24: Nonproliferation & Counterproliferation
  o Gavin, Francis J. "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and

Feb. 26: Nonproliferation through Assistance
  o Krige, John and Jayita Sarkar. “U.S. Technological Collaboration for Nonproliferation:
  o Sarkar, J. “The Economic Strategies of U.S. Nonproliferation Policy during the Nixon-

Feb. 28: Nuclear Reversal & Denuclearization

*Draft Policy Memo due by 5 pm by Turnitin
PART II: Managing Risks

Week 7

Mar. 2: Atoms for Peace, Dissected

Mar. 4: Global Nonproliferation Regime: IAEA

Mar. 6: Global Nonproliferation Regime: NPT

**Spring recess: Mar. 7-15, 2020**

Week 8

What are the challenges and opportunities for multilateral nonproliferation mechanisms on the "supply side"?

Mar. 16: Global Nonproliferation Regime: NSG

Mar. 18: Guest speaker, TBD.

Mar. 20: Climate Change & Nuclear Energy
What are the stakes in promoting nuclear energy as the “carbon free” answer to climate change?

**PART III: Case Studies**

*Weeks 9-12*

**WEEK 9**

*What factors caused the CMC? Can there be lessons? What are the challenges to learning from military nuclear crises with a small N problem?*

**Mar. 23: Crisis Case #1: 1962 Cuban Missile Crisis**
- Movies: *Dr. Strangelove* (1964) & *Fail-Safe* (1964)

**Mar. 25: Crisis Case #2: 1983 Able Archer**

**Mar. 27: Crisis Case #3: 1969 Sino-Soviet border conflict**
- State Telegram 141208 to U.S. Consulate Hong Kong etc., 21 August 1969. [https://nsarchive2.gwu.edu/NSAEBB/NSAEBB49/sino.sov.11.pdf](https://nsarchive2.gwu.edu/NSAEBB/NSAEBB49/sino.sov.11.pdf)

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

**WEEK 10**

*How did France and Israel acquire their nuclear weapons? What factors aided on the demand and supply sides of their proliferation process? What is their relationship with the global nonproliferation? What do their nuclear doctrines look like?*

**Mar. 30: Country Case #1: FRANCE**

**Proliferation [dd/ss], Nonproliferation**
- Avner Cohen’s Interview of Bertrand Goldschmidt on French-Israeli cooperation, [Wilson Center](https://www.wilsoncenter.org/bertrand-goldschmidt)
Apr. 1: Country Case #2: ISRAEL

Proliferation [dd/ss], Nonproliferation, Counterproliferation
  - Chapter 5: Israel

Apr. 3: Country Cases #1 & 2: FRANCE & ISRAEL

Nuclear Doctrines
  - Chapter 6: France
  - Chapter 7: Israel

WEEK 11

How did India and Pakistan acquire their nuclear weapons? What factors aided on the demand and supply sides of their proliferation process? What are the various nuclear doctrines in South Asia? What is the stability-instability paradox? What are the challenges to maintaining nuclear deterrence in the region?

Apr. 6: Country Cases #4 & 5: INDIA & PAKISTAN


Apr. 8: Nuclear Deterrence in South Asia: India-Pakistan-China


Apr. 10: Nuclear Deterrence in South Asia: India-Pakistan-China [contd.]


WEEK 12: SOUTH ASIAN DETERRENCE STABILITY SIMULATION

Apr. 13: Simulation Briefing
Apr. 15: Simulation Preparation
Apr. 17: Simulation Performance

More documents containing detailed guidelines will be provided a few weeks prior to the event.

PART IV: Pressing Issues

Weeks 13-14

WEEK 13:

Apr. 21: Iran Deal and Its Discontents

What is the origin story of Iran’s nuclear program? What is the future of the Iran nuclear deal? What lessons can be derived from Iran’s nuclear program?
Apr. 22: The North Korean Nuclear Weapons
What are the key factors that are behind the persistence of the North Korean nuclear problem? What is alliance decoupling? What is its significance in NE Asia? What are the various successful models of denuclearization? Can any of these be replicated in NE Asia?
*Simulation Write-Up due by 5pm on Blackboard as Turnitin Assignment*

Apr. 24: A.Q. Khan Network and Its Reverberations Today
How did the A.Q. Khan network operate? How can we tackle the private sector to prevent illicit trade and smuggling?
  - Chapter 7: Mastery of Uranium Enrichment
  - Chapter 8: Procurement Network in the Grey Market

WEEK 14
How is radioactive poisoning represented in popular culture? What are some of the myths, and what purposes do they serve?

Apr. 27: Radiation Poisoning: Kazakhstan, South Africa & United States
- Movie: Silkwood (1983)

Apr. 29: Chernobyl

Movie: Chernobyl, Season 1, HBO Series [on reserve for students of IR315]
*Op-Ed #2 due by 5pm by Turnitin on the last day of class.*