

INTL 8273: Nuclear History & Security Policy

Spring 2021

T 12.45-3.30 PM

International Affairs Building (202 Herty Dr.) 117 & via Zoom

Professor: Dr. Molly Berkemeier

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Office hours: by appointment

Course Description and Objectives

This course is a seminar on nuclear history and security policy. It is intended to provide students with an advanced understanding of the theoretical issues surrounding nuclear weapons, their historical development, and the impact they have on world politics and policy. The course will begin by addressing basic concepts of nuclear science and technology such that policy-oriented students can have a better understanding of the science and engineering underlying nuclear weapons. The course will then turn to a discussion of the different states that have built nuclear weapons through time, and the different reasons for and theories of why states proliferate. The class will also address the topic of how states proliferate, looking at illicit proliferation pathways, peaceful nuclear assistance, and covert programs. Next, the class will consider the question of whether or not nuclear weapons have fundamentally altered world politics, focusing on the debate of whether nuclear weapons make the world more or less stable. We will conclude the course by introducing the topics of deterrence, compellence, and counter-proliferation. Students will also complete an independent research project over the course of the semester.

By the end of this semester students should:

- Develop a basic understanding of the science and technology underlying nuclear weapons.
- Understand different proliferation pathways for the nuclear weapons states.
- Know the states that have chosen (not) to proliferate and have an advanced understanding of at least one country's proliferation decision making.
- Understand the ways in which nuclear weapons affect conflict, bargaining, and cooperation.
- Critically evaluate contemporary policy debates related to nuclear weapons in foreign policy, nuclear security, nonproliferation, and disarmament.

2020-2021 Pandemic Policies

I would like nothing more than to be in the classroom with all of you this semester; however, the Covid-19 pandemic has made this unsafe for us and for the larger Athens community. Due to the pandemic, this course is being taught as a hybrid course, with online components and the opportunity to meet in person. This course will comply with UGA requirements as well as the commitment by the Department of International Affairs to allow all students to learn safely (see statement on eLC). Students are not required, nor encouraged to meet in person for face-to-face (F2F) instruction. Students are however given opportunities to be in the classroom following social distancing procedures (5 students maximum in our classroom at a time, masks and laptops/ tablets required, see eLC for group assignments).

Students will be assigned to groups after the drop/add period is over on January 20. These groups will dictate classroom assignments for rotating (optional) classroom attendance. Prior to groups being assigned the first class will be held virtually. This will also allow us to test critical technology and procedures that

will be important during the semester.

UGA Coronavirus policies are listed at the end of the syllabus. Some important notes:

1. If you experience symptoms consistent with Covid-19 or are exposed to someone who has tested positive for Covid-19, **DO NOT ATTEND IN-PERSON CLASS**. Report your exposure and any symptoms immediately through UGA's contact tracing app and seek a test as soon as possible.
2. If you are ill, you might find yourself physically unable to complete assignments on time. If you find yourself in this situation, **DO NOT PANIC**. Reach out to me as soon as possible so we can find a solution.
3. There is no F2F attendance policy for this class, and you will not be punished in any way for exclusively participating in this class online. Virtual attendance is required.
4. Once the class roster is settled, you will be assigned to an "attendance group." You will only be eligible to attend class on your attendance group days. If you choose to attend class in person, note that UGA requires all students, faculty, and staff to wear face coverings over the nose and mouth while indoors and maintain social distance (at least six feet) whenever possible. If you come to class without a face covering, you will be asked to find one or to leave and participate virtually.
5. All class discussions will occur via "real-time" discussion, on Zoom. The class Zoom link and password are included at the top of the syllabus. If there are issues with this link students will be emailed at their UGA email address. Students are expected to attend each online session; if you physically attend class, you will still be engaging with your peers who are ineligible for in-class participation via Zoom.

Course Materials

Readings/Videos/Podcasts are assigned in a weekly block, and must be completed *before* class each week. Students are responsible for all assigned materials, even if it is not explicitly discussed in class. Readings can be accessed through the course eLearning Commons website (log-in at <https://uga.view.usg.edu> with UGA MyID). I also expect students to read (and/or listen to) at least one daily source of national and foreign news. Recommended sources of news can be found on the final page of the syllabus.

Please note that while most readings are available through eLC, we will be discussing *The Spread of Nuclear Weapons* by Scott Sagan and Kenneth Waltz in full. Students are encouraged to either purchase or check out this book from the library. The second and third editions are both acceptable.

Course Expectations and Grading

- NPT Formation Simulation (15%)
 - Simulation Participation - 5%
 - Simulation Memo - 10% A 3-4 page memo is due February 7 at 5 pm.
- Discussion Points (20%) Each student will be required to turn in *two* discussion points each week for six weeks from Weeks 4-9 (each discussion point is worth 2% of your course grade (4% each week), lowest week dropped). Unless otherwise announced, these should be **submitted to eLC by Monday at 3 PM each week** starting on February 8. To be clear, the talking points that are due each Monday must be about the readings assigned for that week. For example, the talking points submitted on 2/8 will cover the readings to be discussed in our class meeting 2/9. No late discussion points will be accepted. These "talking points" will help shape the class discussions, so they should discuss the most interesting theoretical questions or arguments that the student has identified based on the assigned readings. See additional document for further guidelines.

- Research Project (50%)
 - Annotated Bibliography (5%) due February 21 at 5 pm.
 - Argument Chart/ Overview (5%) due February 28 at 5 pm.
 - Draft (10%) due March 14 at 5 pm.
 - Two Feedback Memos (5% each) due March 21 at 5 pm.
 - Presentation (5%) March 30 (in class).
 - Response Memo (5%) due April 5 at 5 pm.
 - Final Paper (10%) due April 5 at 5 pm.
- Participation (15%) Students will be evaluated on virtual contributions to class discussions (quality and quantity) and participation during in-class activities. Each of these is required. To earn full points for participation, students should attend (virtual) class sessions and be prepared to ask questions and react to material from the readings and lecture.

Letter grades correspond to the following 0-100 scale:

94 – 100	<i>A</i>	77 – 79	<i>C+</i>
90 – 93	<i>A–</i>	74 – 76	<i>C</i>
87 – 89	<i>B+</i>	70 – 73	<i>C–</i>
84 – 86	<i>B</i>	60 – 69	<i>D</i>
80 – 83	<i>B–</i>	00 – 59	<i>F</i>

Late Policy: Failure to complete an assignment (on time) will result in a failing grade for that assignment (a score of 0). Late discussion points will not be graded and no make up assignments will be granted for missed discussion points. If the final paper is turned in under 12 hours late it will receive a half letter grade deduction; 12-24 hours late a full grade deduction; and a 0 after that. All other assignments must be turned in on time. ***Please note that during the Covid-19 pandemic, communication is crucial. I am happy to work with you to address unforeseen circumstances, but can only make accommodations if you reach out to me as quickly as possible.***

Grade Appeals: Students are welcome to discuss assignments and their overall class performance during office hours. If you find a mathematical error on a graded assignment please let me know immediately. Students wishing to appeal a grade must wait 24 hours after their assignment has been returned to make an appointment. During that appointment students should come prepared with (1) their assignment/exam, (2) a typed (and emailed) explanation of what the best possible response to the prompt would look like, (3) a typed (and emailed) explanation of how their work compares to that best answer, and (4) their class and reading notes. All requests for such meetings must be made within one week of the date the assignment was returned. Upon reviewing your request, I may raise, lower, or maintain your original grade.

Extra Credit: Due to the numerous and varied assessments, which provide ample opportunity for you to showcase your academic strengths, there will be no extra credit assignments beyond the ones described in this syllabus.

Additional Course Procedures and Policies

Attendance: Face-to-face attendance is not required for this course during 2020-2021. Students are however required to attend weekly synchronous discussion sessions via Zoom.

Discussion Etiquette: Debate and discussion are part of critically evaluating arguments and perspectives in international relations. I expect you to talk to each other, not just to me. HOWEVER, the point of discussion is to use criticism and contrasting opinions to sharpen each others arguments and bring out hidden assumptions, NOT to destroy another's ideas or make yourself look better than someone else. It

is crucial that the spirit of discussion remain open, honest, and respectful even when we disagree. No disparaging remarks or personal insults will be tolerated in class. eLearning provides both unique challenges and opportunities. Please reference the additional handout for Zoom etiquette.

Technology Policy: During 2020-21, students are required to have a laptop, tablet, or phone with them even when taking advantage of opportunities for face-to-face instruction.

Contacting Me Outside of Class: The most efficient way to contact me is by email (molly.berkemeier@uga.edu). As with all business-related correspondence, be sure to include the appropriate salutation (e.g. “Dear Dr. Berkemeier”), identify yourself, and write in complete sentences. Please allow 24 hours for an email response during the week. If you send me an email on the weekend, the 24 hour clock starts Monday at 9 AM. If you have not heard from me in 24 hours, send a follow-up email.

Office Hours: During 2020-2021 all office hours will be virtual and by appointment. I am more than happy to answer course-specific questions, or just chat. Office hours are there for your use – take advantage of them.

Course Materials Copyright & Statement on Recording: The handouts used in this course are copyrighted. By “handouts,” I mean all materials generated for this class, which include but are not limited to syllabi, slides, tests, and assignments. Because these items are copyrighted, students do not have the right to copy handouts (or place them online), unless I expressly grant permission, which I have not. In the absence of written authorization from the UGA Disability Resource Center, students may not make a visual or audio recording of any aspect of this course. Students also do not have the right to post recordings of any portion of the class online or to distribute by other means.

Course Schedule

Students are expected to have completed all the required material before class each week. The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. The professor will provide sufficient advanced notice of changes by making announcements in class or on eLC.

In Spring 2021 this class will follow an amended schedule with the final class period on March 30. There will be a total of four makeup classes scheduled throughout the semester to replace the instructional periods from April 6 - 27.

Week 1 Course Introduction (1/19) and Nuclear Science & Technology (make-up 1)

- Hoover Green, Amelia. 2013. “How to Read Political Science: A Guide in Four Steps.” Pages 1-4. Available at: <https://www.ameliahoovergreen.com/uploads/9/3/0/9/93091546/howtoread.pdf>.
- Read the Syllabus. Really, read it.
- WATCH: PBS *The Bomb* Documentary (streaming through Kanopy).

Makeup class 1 (asynchronous, optional in-person office hours):

- Makeup lecture 1 (asynchronous).
- WATCH: Matthew Bunn “How Nuclear Bombs Work Part 1/2”, Focus on part up to 48:23. <https://www.youtube.com/watch?v=zVhQ0hxb1Mc>.
- Forsberg, Randall. 1995. *The Nonproliferation Primer*. Cambridge, MA: MIT Press. pp. 11–49.

Week 2 Nuclear History, Origins of the NPT, & Simulation Overview (1/26)

- Freedman, Lawrence. 2003. “The Arrival of the Bomb” in *The Evolution of Nuclear Strategy*. 3rd Edition. London: UK: Palgrave Macmillan.

- LISTEN: Sahay, Usha. 2020. “A Most Terrible Weapon” Podcast produced by *War on The Rocks*, episodes 1-3 (Planning Armageddon, The Dilemmas of Deterrence, The Perverse Sensibility of Nuclear War).

Week 3 Simulation: Formation of the NPT (2/2)

- Simulation handbook (Wallerstein 2018).
- Country backgrounder (to be assigned).
- LISTEN: Sahay, Usha. 2020. “A Most Terrible Weapon” Podcast produced by *War on The Rocks*, episodes 4-6 (Building Stalin’s Nukes, The Soviets’ Dark Nuclear Romance, The Humanity Beneath the Bomb).

All readings must be completed prior to Tuesday. With the aim of having a seamless simulation and for the sake of fairness, the entire simulation will be conducted virtually.

Week 4 Why Do States Proliferate? (2/9) and Library Research Time (make-up 2)

- Sagan, Scott D. 2012. “Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb.” *International Security*. 21(3): 54–86.
- Monteiro, Nuno P., and Debs, Alexandre. 2014. “The Strategic Logic of Nuclear Proliferation.” *International Security*. 39(2): 7–51.
- Solingen, Etel. 1994. “The Political Economy of Nuclear Restraint.” *International Security*. 19(2): 126–169.
- Jo, Dong-Joon and Gartzke, Erik. 2007. “Determinants of Nuclear Weapons Proliferation.” *Journal of Conflict Resolution*. 51(1): 167–194.

First set of talking points due 2/8 at 3 pm. Simulation Memo due 2/7 at 5 pm. Country sign-ups due 2/7 at 5 pm.

Week 5 Why Do(n’t) States Proliferate? (2/16) and Library Research Time (make-up 3)

- Rublee, Maria Rost. 2009. “Nonproliferation Norms: Why States Choose Nuclear Restraint.” University of Georgia Press. Chapter 1. Pages 1–34.
- Hymans, Jacques EC. 2000. “Isotopes and Identity: Australia and the Nuclear Weapons Option, 1949–1999.” *The Nonproliferation Review*. 7(1): 1–23.
- Fuhrmann, Matthew and Horowitz, Michael C. 2014. “When Leaders Matter: Rebel Experience and Nuclear Proliferation.” *The Journal of Politics*. 77(1): 72–87.
- Hymans, Jacques EC. 2011. “Veto Players, Nuclear Energy, and Nonproliferation: Domestic Institutional Barriers to a Japanese Bomb.” *International Security*. 36(2): 154–189.

Second set of talking points due 2/15 at 3 pm.

Week 6 Have Nuclear Weapons Changed the World? (2/23)

- Berkemeier, Molly and Fuhrmann, Matthew. 2018. “Nuclear Weapons in Foreign Policy.” In *Oxford Research Encyclopedia of Politics*.
- Waltz, Kenneth and Sagan, Scott. 2013. *The Spread of Nuclear Weapons: A Debate*. WW Norton & Company.

- Schelling, Thomas C. 2008. *Arms and Influence*. Yale University Press. Pages 1-34.

Third set of talking points due 2/22 at 3 pm. Annotated bibliography due 2/21 at 5 pm.

Week 7 Nuclear Deterrence (3/2)

- Snyder, Glenn Herald. 2015. *Deterrence and Defense*. Princeton University Press. Chapter 1. Pages 1–30.
- Powell, Robert. 1985. “The Theoretical Foundations of Strategic Nuclear Deterrence” *Political Science Quarterly*. 100(1): 75–96.
- Narang, Vipin. 2013. “What Does it Take to Deter: Regional Power Nuclear Postures and International Conflict.” *Journal of Conflict Resolution*. 57(3): 478–508.

Fourth set of talking points due 3/1 at 3 pm. Argument chart/ overview due 2/28 at 5 pm.

Week 8 Nuclear Coercion, Crises & Compellence (3/9)

- Betts, Richard K. 1987. *Nuclear Blackmail and Nuclear Balance*. Washington: Brookings. Chapter 1. Pages 1–21.
- Kroenig, Matthew. 2013. “Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes.” *International Organization*. 67(1): 141–171.
- Sechser, Todd S. and Fuhrmann, Matthew. 2013. “Crisis Bargaining and Nuclear Blackmail.” *International Organization*. 67(1): 173–195.
- LISTEN: Hersman, Rebecca and Hodges, Doyle. 2020. “Distortions in the Fabric of Deterrence.” *Horns of a Dilemma* Podcast. Texas National Security Review. Available at: <https://warontherocks.com/2020/07/distortions-in-the-fabric-of-deterrence/>.

Fifth set of talking points due 3/8 at 3 pm.

Week 9 Counter-proliferation (3/16)

- Kreps, Sarah E., and Fuhrmann, Matthew. 2011. “Attacking the Atom: Does Bombing Nuclear Facilities Affect Proliferation?” *Journal of Strategic Studies*. 34(2): 161-187.
- Miller, Nicholas L. 2014. “The Secret Success of Nonproliferation Sanctions.” *International Organization*. 68(4): 913-944.
- Gerzhoy, Gene. 2015. “Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany’s Nuclear Ambitions.” *International Security*. Pages 91–129.

Sixth set of talking points due 3/15 at 3 pm. Draft of paper due 3/14 at 5 pm.

Week 10 Catch-Up, Overview of Special Topics (3/23), and Small Group Meetings (make-up 4)

- Davis-Gibbons, Rebecca. “The Nuclear Ban Treaty: How Did We Get Here and What Does it Mean for the United States?” July 14, 2017. War on the Rocks. <https://warontherocks.com/2017/07/the-nuclear-ban-treaty-how-did-we-get-here-what-does-it-mean-for-the-united-states/>.
- Brooks, Linton. 2020. “The End of Arms Control?” *Daedalus*. 149(2): 84–100.
- Timbie, James. 2020. “A Way Forward.” *Daedalus*. 149(2): 190–204.

- Johnson, James and Krabill, Eleanor. 2020. “AI, Cyberspace, and Nuclear Weapons.” *War on the Rocks*.

Feedback memos (2) due 3/21 at 5 pm. Students are required to schedule small group meetings before Saturday to review and communicate their feedback.

Week 11 Student Presentations (3/30)

In class presentations.

Week 12 Final Essay and Response Memo Due (4/5)

Final essay and response memo due 4/5 at 5 pm.

Accommodations for and Statement about Students with Disabilities

UGA is committed to providing equal access to academic programs and university-administered activities and reasonable modifications to students with disabilities. Students in need of special accommodations need to request such services from the Disability Resource Center located at 114 Clark Howell Hall (for more information visit www.drc.uga.edu). In accordance with University policies, reasonable accommodations will be made for all students with disabilities, but it is the student’s responsibility to communicate with the instructor early in the term. All accommodations for disabilities must be arranged well in advance of any assignments and exams.

UGA’s code of conduct protects student privacy and intellectual property and thus prohibits recording and digital release of classroom lectures and conversations unless a student has an accommodation from the DRC. If this is your situation, please let me know and we will devise an accommodation that protects your right to privacy, that of your classmates, and everyone’s intellectual property.

Academic Integrity Statement and Policy

The UGA Student Honor Code states: “I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others.” *A Culture of Honesty*, the University’s policy and procedures for handling cases of suspected dishonesty, can be found at <https://honesty.uga.edu>. As a University of Georgia student, you have agreed to abide by the University’s academic honesty policy. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Any student caught cheating or plagiarizing will be referred to Judicial Affairs, as required by university policy. The professor, the School of Public and International Affairs, and the University take violations of academic honesty very seriously. All course work must be done on an individual basis unless the professor clearly indicates that group work is acceptable. **Any reference materials must be explicitly cited.** If you have any questions about what constitutes a dishonest practice, consult with the professor.

Statement about Diversity Policy

The School of Public and International Affairs supports the University of Georgia’s commitment to diversity, and welcomes individuals from any racial, ethnic, religious, age, gender, sexual orientation, class, disability, and nationality (See: <http://diversity.uga.edu/index.php/about/welcome>). In the spirit of this vital commitment, in this course each voice in the classroom has something of value to contribute to all discussions. Everyone is expected to respect the different experiences, beliefs, and values expressed by fellow students and the instructor, and will engage in reasoned discussion that refrains from derogatory comments about other people, cultures, groups, or viewpoints.

Title IX and Statement On Limits to Confidentiality

The University of Georgia and SPIA are committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws provide guidance for achieving such an environment. Although class materials are generally considered confidential pursuant to student record policies and laws, University employees cannot maintain confidentiality when it conflicts with their responsibility to report certain issues that jeopardize the health and safety of our community. As the professor, I must report certain information to other University offices if you share it with me. This includes, allegations of sexual assault, sexual discrimination, or sexual harassment when they involve UGA students, faculty, or staff, or third parties visiting campus. UGA also has a vast array of resources available to students facing a variety of challenges.

Mental Health and Wellness Resources:

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.

Students and faculty can report non-emergency behavior that causes them to be concerned using these confidential reporting resources: <https://eoo.uga.edu/Confidential-Reporting>.

Additional Resources

For further information, background reading, and research, see the following outlets of international relations and international security:

- *New Yorker, Economist, Foreign Affairs, Foreign Policy, The Washington Quarterly*

Great blogs on international relations-related issues:

- <https://foreignpolicy.com> (*aimed at a general audience*)
- <https://warontherocks.com> (*experts blog on national security issues*)
- <https://www.washingtonpost.com/news/monkey-cage/> (*brings findings from social science to bear on policy issues*)
- <https://www.armscontrolwonk.com/> (*covers nuclear and other arms control issues*)
- <https://www.lawfareblog.com/> (*role of law in war and conflict*)

For day-to-day (and weekly) news coverage in both print and audio mediums:

- Print: *The New York Times, Washington Post, Financial Times, BBC World News*
- Audio: BBC World Service Radio, National Public Radio, NPR's Up First podcast, The Daily podcast, Bombshell podcast, War on the Rocks podcast, Horns of a Dilemma podcast.

UGA Coronavirus Policies

Face Coverings: Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at <https://drc.uga.edu/>.

DawgCheck: Please perform a quick symptom check each weekday on DawgCheck – on the UGA app or website – whether you feel sick or not. It will help health providers monitor the health situation on campus: <https://dawgcheck.uga.edu/>.

What do I do if I have symptoms?: Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see <https://www.uhs.uga.edu/info/emergencies>.

What do I do if I am notified that I have been exposed?: Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at sco@uga.edu, to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

How do I get a test?: Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162. UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

What do I do if I test positive?: Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.

** Students who completely read this syllabus and email me the name of their favorite movie by January 25 will receive an additional point to their final grade.*