**INTA/NRE 8803-RW/ERI: Politics, Tech & Proliferation**

*Next Generation Deterrence, Detection, and Verification*

Course Syllabus

Spring 2022, Mondays & Wednesdays 12:30 – 1:45pm

Habersham Building, G17

Canvas.gatech.edu

*Faculty Contact Information:*

Dr. Anna Erickson, Nuclear and Radiological Engineering

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Habersham 218

*Graduate Teaching Assistant:*

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Virtual Office Hours; Mondays and Wednesdays 2:00-3:00 pm

<https://bluejeans.com/962390911/7607>

**Course Description**

How should the international community respond to changes that have taken place in the nuclear landscape since the end of the Cold War? There are new nuclear states, growing nuclear arsenals, dying arms control and verification measures, and significant technological advancements, all of which challenge deterrence and nonproliferation frameworks that have governed international politics for the last decades. Is the current regime that relies primarily on deterrence, verification, and detection the best one for the evolving environment? Creative solutions are needed, and they require an interdisciplinary undertaking.

To that end, this seminar course is designed to encourage new thinking and creative effort on nuclear deterrence and strategic stability for our global future. It is project based, where students will work in interdisciplinary teams to design, execute, and present projects that speak to the next generation of deterrence, detection, and verification.

The course is comprised of four parts. The first part offers an introduction to key concepts in both nuclear engineering and international security. Part two offers a deeper dive into relevant treaty, detection, and verification frameworks. Part three explores deterrence in a changing international environment from both an emerging technology and contemporary global political perspective. Finally, in part four, students will present their independent group projects.

**Learning Outcomes**

This course has five intended learning outcomes. By the end of the course, students will be able to:

1. Identify and explain fundamental concepts in nuclear engineering and international security
2. Interpret a variety of emerging technologies and their implications for international security and global proliferation
3. Effectively apply oral communication tools to demonstrate knowledge and make cogent arguments at the intersection of technology and security
4. Effectively apply written communication to showcase knowledge, especially but not exclusively in the policy and technical writing styles
5. Design and execute an independent research project of interest to scientific, engineering, and international security communities

**Course Readings**

There is no book to purchase in this class. Instead, students will have access to course materials via both the Canvas course website and through Georgia Tech Library databases. The professors maintain discretion to modify readings and topics as necessary. Students are responsible for completing readings PRIOR to coming to class.

**Course Requirements and Student Evaluation**

*Participation - 15%*

Students will come to class prepared to engage with the reading material and the guest lectures. They will ask and answer questions and pose topics for discussion based on the reading material.

*Policy and Technical Memos - 30%*

Three times during the semester (February 9th, March 9th, and April 18th), students will prepare short writing assignments designed to engage course topics. Memos must be uploaded to Canvas prior to the class session for which they are due, and students will be prepared to discuss them as part of the session’s discussion. The first two memos – one policy memo and one technical memo – will be written individually; the third will be written collectively by each project team. Memos must engage some topic germane to the section of the course in which they are due. Additional details will be forthcoming.

*Group Project* - 55%

Following the introductory sessions and by the fourth week of the semester, students will be organized into interdisciplinary groups to undertake projects designed to address challenges related to deterrence, detection, and verification in the evolving current and future nuclear world.

The professors will provide a list of acceptable research topics and each group will design a relevant investigation. Projects will substantively speak to technical and strategic issues; methodologically, groups have wide latitude to conduct their analysis using theoretical analysis, laboratory experiments, or computer-based models and simulations.

When instructed, students will identify a group leader to serve as the main point of communication between the group and the course instructors. Students will then work on the projects throughout the semester and will have dedicated class time in week 12 to execute and peer-review their work; projects will be presented in week 15.

Group project grades will include both a written analysis and an oral presentation. The content of these projects will vary substantively, but all will yield a polished ~2500-word final paper that discusses a research question and its importance, relevant engineering and political science literature, hypotheses, methodology, analysis, findings, and implications/conclusions. Additional details will be forthcoming.

Note that each group will receive a grade for this project, though there will be an opportunity for peer evaluation, which can positively or negatively influence your individual grade. The best project will receive a prize and an opportunity to virtually brief the leadership from the Nuclear Threat Initiative and both the Sam Nunn School of International Affairs and the Department of Nuclear and Radiological Engineering here at Georgia Tech.

Additional details will be forthcoming throughout the semester, though note that you have the following deliverables to produce, which together sum to 55 points.

Group Project Deliverables:

* Proposal document, **Wednesday, February 23rd**: 3-page narrative uploaded to Canvas including the significance of the idea, objectives, technical approach and expected outcomes. (5 points)
* Proposal presentation, **Wednesday, February 23rd**: ~15-minute (10-minute remarks + 5-minute Q&A) group presentation of your planned research strategy. Exact schedule to be determined. (5 points)
* Procedures, **Wednesday, March 16th**: detailed procedures of the proposed experiment or detailed discussion of proposed research methodology. (5 points)
* Worksheet, **Monday, April 4th**: details and calculations after the experiment or analysis is completed or preliminary assessment of findings. (5 points)
* Final presentation, **Wednesday,** **April 20th**: ~15-minute (10-minute remarks + 5minute Q&A) group presentation of the project and results. (15 points)
* Final paper, **Friday, April 29th**: a full report including the required components as outlined in class. (20 points)
	+ Peer evaluation to be completed individually and turned in to the professors alongside the final project, **Friday, April 29th**.

**Summary of Course Grades and Breakdown**

Participation: 15 points

Memos: 30 points

Group Project: 55 points

Final Grade: out of 100 total points

We use a traditional grading scale with assignments totaling 100 points:

100-90 A │89-80 B│79-70 C │69-60 D│50-0 F

No curves should be anticipated for this class.

**Late Papers / Penalties / Unexcused Absences**

The dates of the course activities and paper assignments are set. Unless you have an approved accommodation, assignments turned in after the deadline will be penalized 10% for each day or fraction thereof where it is late. This means that if you turn in the paper at 2:00 am instead of midnight on the day that it is due, you will automatically lose 10% of the total possible points; if you turn it in at 9am on the day after it was due, you will lose 20% and so on and so forth.

Accommodations can be sought in advance of a valid conflict, including, but not limited to, illness such as Covid-19, family or religious obligation, or approved university business, including travel or athletic competition that constitutes “approved Institute activities.” Religious holidays and regular sporting competition are both already on the calendar, so these should be brought to the instructors during the first two weeks of the semester. Subsequently, should an unforeseen, new conflict arise, please contact the instructors immediately and provide the necessary documentation, as offered by the Office of Student Life or relevant healthcare professional. In short, please contact us as soon as possible regarding any conflicts or absences when assignments are due.

**Covid-19, Masks, and Illness**

Attendance and participation are important to your success in this course. However, we recognize that we are living through a global pandemic and unprecedented health crisis, so we are going to be gracious with ourselves as the situation requires. Though we are beginning the semester in person, we should all be prepared to return to an extended virtual environment, should the situation require.

If you are sick, have been exposed to Covid-19, or your health precludes your from participating in class meaningfully, please stay home. Coming to class sick only risks spreading illnesses. We urge you to do your part to engage in healthy behaviors by abiding by [CDC](https://www.cdc.gov/coronavirus/2019-ncov/index.html) and [WHO](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public) guidelines, which include wearing a mask, particularly when indoors and among large groups of people, getting vaccinated for Covid-19, including booster shots, and staying home when sick.

As we heard last fall from Georgia Tech President Ángel Cabrera:

*The new vaccines have proven to be extraordinarily effective at preventing severe illness. Data across the U.S. show that new hospitalizations and deaths due to the new virus variants are associated almost entirely with unvaccinated individuals. If there is one thing each one of us can do to protect ourselves and keep others safe, it is to get vaccinated. If you have questions or concerns about vaccination, it’s critical that you discuss them with your healthcare provider or any member of our Stamps Health Services team... I ask that you reach out to them, get any information you may need, and get vaccinated if you haven’t already.*[*Getting vaccinated at Georgia Tech*](https://health.gatech.edu/coronavirus/vaccine)*is easy and free.*

*If you choose not to get vaccinated, you will be at risk of contracting Covid-19 and infecting others, with potentially severe consequences for you or someone else. To lower the risk for you and others, you are encouraged to wear a mask in indoor public places, including campus buildings, as recommended by the CDC. If you are unvaccinated and are exposed to someone with Covid-19, you will be subject to quarantine per current Georgia Department of Public Health guidelines.*

*The CDC recently issued*[*new interim guidance*](https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html)*recommending the use of masks inside public buildings even by fully vaccinated individuals as a precaution given the broad circulation of the highly contagious delta variant of the virus. At Georgia Tech, everyone is encouraged to wear a mask or face covering while inside campus facilities.*

*The free asymptomatic surveillance testing program, which has been so instrumental in our ability to contain the virus on campus this past year, remains available to all students and employees. You may participate in regular testing even if you have been fully vaccinated, but I especially encourage those who have not been vaccinated to get tested weekly. We regularly update*[*campus testing sites and hours*](https://health.gatech.edu/coronavirus/testing)*. If you have Covid-19 symptoms, please*[*book a test for symptomatic students*](https://health.gatech.edu/coronavirus/testing)*.*

In our class, we will follow the President’s guidance, and we encourage you to follow all recommendations, including the most recent from January 2022. This means that all members of the class are encouraged to wear an N/KN95 mask or medical-grade face covering while in class, get vaccinated against Covid-19 including boosters, and participate in Covid-19 surveillance testing regularly.

**Class Discussion Policy**

This class is a forum for personal growth, curious discussion, and lively intellectual debate. It is crucial that the spirit of discussion remain open, honest, and respectful even when we disagree. We will always be polite with each other and recognize that even those with whom we disagree have something to contribute to the conversation. Your reflections or suggestions on how to ensure an inclusive learning environment for you individually or for others are always welcome.

**University Diversity Statement**

This course is offered by the Ivan Allen College of Liberal Arts and the Woodruff School of Mechanical Engineering. The Ivan Allen College and Woodruff School support Georgia Tech’s commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society. If you have any concerns about inclusive diversity in this course, please don’t hesitate to raise them to the instructors.

**Academic Integrity and University Statement on Plagiarism**

According to the Georgia Tech Student Affairs Code of Conduct, plagiarism “[includes] submission of material that is wholly or substantially identical to that created or published by another person or persons, without adequate credit notations indicating the authorship.”[[1]](#footnote-1) It is the act of appropriating the work of another, or parts of passages of his or her writings, or language or ideas of the same, and passing them off as a product of one’s own. It involves the deliberate or accidental use of any outside source without proper acknowledgment. Plagiarism is scholarly misconduct whether it occurs in any work, published or unpublished, or in any application for funding. There is a zero-tolerance policy for plagiarism and penalties will be doled out per university regulations. The GT Honor Code is available online (<http://policylibrary.gatech.edu/student-affairs/academic-honor-code>)

**Writing Services**

If you are concerned about your writing, or seek to improve it, we highly recommend contacting the GT Communication Center located in Clough Commons 447 (<http://www.communicationcenter.gatech.edu/>). They offer several services from CV development to peer tutoring and are a great resource for all kinds of assignments – oral, written, visual, etc.

**Students with Disabilities**

Georgia Tech is committed to providing accommodation for all students with disabilities through the Office of Disability Services ([http://disabilityservices.gatech.edu/)](http://disabilityservices.gatech.edu/%29). Any student in this course who has a disability that may prevent them from fully demonstrating their abilities should contact us via appropriate channels as soon as possible to discuss necessary accommodations to ensure full participation and facilitate their educational opportunities. Students with disabilities must be registered with the Disability Services Program prior to receiving accommodations in this course and provide appropriate documentation attesting to their registration. The Disability Services Program is located in Smithgall Student Services Building, phone 404-894-2563 or TDD 404-894-1664.

**Additional Student Resources**

The Center for Academic Success ([success.gatech.edu](http://success.gatech.edu/)/) offers a variety of academic support services to help students succeed academically at Georgia Tech (e.g., tutoring, peer-led study groups, study skills, etc.). The Division of Student Life ([studentlife.gatech.edu](http://studentlife.gatech.edu/)) – often known as the Office of the Dean of Students – offers resources and support for all students in the Tech community. The Counseling Center ([http://counseling.gatech.edu/)](http://counseling.gatech.edu/%29) offers free mental health services, as well as stress management and wellness workshops to all currently enrolled students. The Counseling Center is located in Smithgall, Suite 238 and are offering virtual and in-person resources.

**Email Policy**

GTA Heather Regnault is the person to whom most, if not all, matters relating to our course should be directed. As a matter of policy, all instructors will cease responding to emails weekdays at approximately 6:00 pm. Students should not expect regular weekend communication and should note that they may take up to 36 hours to reply to regular correspondence. To facilitate conducting business via email, please be sure to write your emails professionally and include all relevant information when emailing. Keep in mind that for extensive or nuanced substantive matters, a virtual meeting during office hours may be more productive.

**Virtual Office Hours**

**GTA Heather Regnault:**Mondays and Wednesdays 2:00-3:00 pm <https://bluejeans.com/962390911/7607>

Students are welcome and encouraged to arrange meetings with Heather during office hours for questions, clarifications, or further assistance with course content and assignments. Students should also be in touch with Heather before contacting the professors.

**Technology Policy**

Laptops can be a distraction both to ourselves and to our classmates. We are all guilty of multitasking in meetings and otherwise. Please be mindful of your classmates, and come to class prepared to work, discuss, and engage with the material. All cell phones and other devices that make noise must be silenced and put away as soon as class begins.

**Course Modality**

Given the ongoing Covid-19 pandemic, we will try to prepare for any eventuality. If/when we conduct class synchronously online, students will:

* Download the relevant virtual platform for improved technical performance;
* Join class via the distributed link;
* Mute all cell phones and other devices that make noise and put them away as soon as class begins;
* Note that class sessions will be recorded.

**Classroom and Netiquette**

* To facilitate an interactive and efficient learning environment:
	+ Keep your camera on during our class session (or request permission not to); feel free to use an appropriate background;
	+ Keep your microphone muted while others are speaking; this is critically important for effective discussion;
	+ As you would in person, raise your hand and politely speak up when you wish to interject;
	+ Be prepared to be called on at any time;
	+ As necessary, we will be recording class sessions;
	+ As with regular in-person classes, engage others respectfully.

**Course Outline: Subject and Readings Schedule**

Background materials are to be learned prior to the course session for which they are listed. Students should be prepared to discuss assignments in the class session on their due date.

N.B.: This schedule and the course content is subject to revision at the professors’ discretion. Should modifications become necessary, we will provide as much advanced warning as is possible.

**Part I: Introduction and Fundamentals**

***Week 1***

**Monday, January 10 – Course Introduction**

**Meet Virtually:**<https://bluejeans.com/1921263691>

* Erickson and Whitlark
* Syllabus review and project requirements overview

**Wednesday, January 12 – Fundamentals of Nuclear Technology**

**Meet Virtually:**<https://bluejeans.com/1921263691>

* Anna Erickson, Department of Nuclear and Radiological Engineering, Georgia Tech
* Background Materials:
	+ Introduction into basic physics (1-hr lecture) by Prof. Steve Biegalski, Georgia Tech: <https://eti.gatech.edu/eti101/>

***Week 2***

**Monday, January 17 – MLK
NO CLASS**

**Wednesday, January 19**– **Fundamentals of Nuclear Deterrence**

**In-person sessions from here on out, unless otherwise specified.**

* Rachel Whitlark, Sam Nunn School of International Affairs, Georgia Tech
* Background Materials:
	+ Deterrence 101, Module 1, CSIS: <https://www.youtube.com/watch?v=g1th_3vlLd4>
	+ Deterrence 101, Module 2, CSIS: <https://youtu.be/BTedg2Ya0ZQ>

***Week 3***

**Monday, January 24 – Skills Session: How to Write (and Read) a Policy Memo**

* Rachel Whitlark, Nunn School of International Affairs, Georgia Tech
* Background Materials:
	+ Mastro, Oriana. "Teach What You Preach." *Journal of Political Science Education* (2021).

**Wednesday, January 26 – Early History, Testing, & Weapons Effects**

* Dr. Michael Hynes, MIT Department of Nuclear Science and Engineering

***Week 4***

**Monday January 31 – Skills Session: How to Write (and Read) a Technical Memo and Introduction of Group Project Assignment**

* Anna Erickson, Nuclear and Radiological Engineering, Georgia Tech
* Introduction of group project parameters

**Wednesday, February 2 – In-Class Group Project Work**

* Groups are listed on Canvas and the project guidelines document is available on Canvas under modules (see last module)

***Week 5***

**Monday, February 7 – Fundamentals of Strategic Stability**

* Dr. Larry Rubin, Sam Nunn School of International Affairs
* Background Materials:
	+ The End of Strategic Stability? : Nuclear Weapons and the Challenge of Regional Rivalries Lawrence Rubin , and Adam N. Stulberg, p-1-13  (Library on line)
	+ <https://carnegieendowment.org/2013/02/05/reclaiming-strategic-stability-pub-51032>
	+ <https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-15_Issue-4/D-Kroenig.pdf>
	+ Resources to explore: <https://www.strategicstability.org/>

**Wednesday, February 9 – Discussion: Challenging the Existing Regime**

* Background Materials:
	+ Mueller, John. "The essential irrelevance of nuclear weapons: Stability in the postwar world." *International Security*13, no. 2 (1988): 55-79.
* **Assignment:** Policy Memo Due – Upload via Canvas

**Part II: Treaties, Safeguards, and Verification**

***Week 6***

**Monday, February 14 – Additional Protocol and State Level Concept**

* No In-person Class
* Background Materials: Watch Laura Rockwood recording on Canvas under "Media Gallery"
* *Virtual* discussion: 1:15 – 1:45 pm <https://bluejeans.com/1921263691>

**Wednesday, February 16 – Safeguards**

* Dr. Nolan Hertel, Nuclear and Radiological Engineering, Georgia Tech
* Background Materials:
	+ Read through as much as possible:
		- Mary Lin Garcia, "Physical Protection," in *Nuclear Safeguard, Security, and Nonproliferation: Achieving Security with Technology and Policy,*James E. Doyle, Los Alamos National Laboratory (Uploaded on Canvas under modules)
		- Brian Boyer and Mark Schanfein, "International Safeguards Inspection: An Inside Look at the Process," in *Nuclear Safeguard, Security, and Nonproliferation: Achieving Security with Technology and Policy,*James E. Doyle, Los Alamos National Laboratory (Uploaded on Canvas under modules)
	+ Further recommended reading:
		- "IAEA Safeguards: Staying Ahead of the Game," IAEA, July 2007 (Uploaded on Canvas under modules)

***Week 7***

**Monday, February 21 – Nuclear Nonproliferation Treaties**

* No In-person Class
* Background Materials Watch Dr. Rebecca Davis Gibbons recording on Canvas under "Media Gallery"
* Virtual discussion: 12:30 – 1:45 pm <https://bluejeans.com/1921263691>

**Wednesday, February 23 – Group Project Presentations**

* No reading assignment
* **Assignment**: Each group to brief class on project proposal.

***Week 8***

**Monday, February 28 – Verification**

* Matthew Dunbrack, PhD Candidate, Georgia Tech

**Wednesday, March 2 – Discussion: Challenging the Existing Regime**

* Background Materials:
	+ Davis Gibbons, Rebecca. Addressing the Nuclear Ban Treaty, *The Washington Quarterly*, 42:1 (2019): 27-40.
	+ Williams, Heather. “What the Nuclear Ban Treaty Means for America’s Allies.” *War on the Rocks,*November 5, 2020: <https://warontherocks.com/2020/11/what-the-nuclear-ban-treaty-means-for-americas-allies/>

***Week 9***

**Monday, March 7 – Detection**

* Steven Biegalski, Georgia Tech
* Background Materials:
	+ Comprehensive Nuclear Test Ban Treaty (CTBC) - on Canvas under Modules

**Wednesday, March 9 – Arms Control**

* Sarah Bidgood, Director, Eurasia Nonproliferation Program, James Martin Center for Nonproliferation Studies
* Background Materials:
	+ Ukraine: [https://warontherocks.com/2022/02/what-would-russias-break-with-the-west-mean-for-nuclear-arms-control/ (Links to an external site.)](https://warontherocks.com/2022/02/what-would-russias-break-with-the-west-mean-for-nuclear-arms-control/)
	+ Nancy Gallager, "Re-Thinking the Unthinkable: Arms Control in the 21st Century," The Nonproliferation Review Vol. 22, Issue 3-4 (2015), pp. 469-498, <https://doi.org/10.1080/10736700.2016.1149279.>
* **Assignment:** Technical Memo Due – Upload to Canvas

**Part III: Emerging Technology and the Changing Deterrence Landscape**

***Week 10***

**Monday, March 14 – Emerging Tech & Institutions**

* Nick Roth, Nuclear Threat Initiative
* Background Materials:
	+ The Risks and Rewards of Emerging Technology in Nuclear Security, <https://media.nti.org/documents/THE_RISKS_AND_REWARDS_OF_EMERGING_TECHNOLOGY_IN_NUCLEAR_SECURITY.pdf>
	+ IAEA Nuclear Security Recommendations (INFCIRC/225): The Next Generation, <https://www.stimson.org/wp-content/uploads/2020/07/IAEA-225-Recommendations.pdf>
	+ Nuclear Security in Times of Crisis, <https://www.stimson.org/2021/nuclear-security-in-times-of-crisis/>

**Wednesday, March 16 – Open-Source Intelligence & Nonproliferation**

* Jessica Varnum, Deputy Director, James Martin Center for Nonproliferation Studies
* Background Materials:
	+ Background Materials:
	+ <https://www.nti.org/analysis/articles/build-your-own-new-tools-toolbox-a-guide-to-open-source-nuclear-detective-work/>
	+ For additional optional readings in this vein, this and other articles on Bellingcat are useful overviews to the kind of techniques that exist:
		- [https://www.bellingcat.com/resources/2021/11/09/first-steps-to-getting-started-in-open-source-research/ (Links to an external site.)](https://www.bellingcat.com/resources/2021/11/09/first-steps-to-getting-started-in-open-source-research/)
	+ <https://www.theverge.com/2017/3/24/15041826/cns-north-korea-nuclear-missile-test-tracking-icbm-analysis>
	+ <https://www.thedailybeast.com/these-nerds-saw-ukraine-invasion-start-on-google-maps-before-vladimir-putin-said-a-word?ref=scroll>
	+ <https://www.washingtonpost.com/national-security/china-nuclear-missile-silos/2021/06/30/0fa8debc-d9c2-11eb-bb9e-70fda8c37057_story.html>
	+ <https://www.middlebury.edu/institute/news/decker-eveleth-incoming-nonproliferation-and-terrorism-studies-student-identifies-nuclear>
	+ Overview of open-source ethics issues: <https://stanleycenter.org/wp-content/uploads/2020/01/RRNW-TheGraySpectrum120-web.pdf>

**Assignment**: Procedures document upload to Canvas.

***Week 11***

**Monday March 21 – University Spring Break**

* NO CLASS

**Wednesday, March 23 – University Spring Break**

* NO CLASS

***Week 12***

**Monday, March 28 – Group Projects**

* Dedicated project time

**Wednesday, March 30 – Group Projects**

* Dedicated project time

***Week 13***

**Monday, April 4 – Emerging Tech: Advanced Reactor Design**

* Dr. Abdalla Abou Jaoude, Idaho National Laboratory
* Background Materials: TBD
* **Assignment**: Worksheet upload to Canvas.

**Wednesday, April 6 – U.S. Nuclear Modernization**

* Amy Woolf, Congressional Research Service
* Background Materials: TBD

***Week 14***

**Monday, April 11 – Global Nuclear Modernization**

* In-class discussion with Dr. Adam Stulberg
* Background Materials Watch videos on Russian, Chinese, North Korean, and Iranian nuclear development. Links to be provided.

**Wednesday, April 13 – Deterrence in a Multipolar World**

* Dr. Brad Roberts, Livermore National Laboratory
* Background Materials:
	+ <https://cgsr.llnl.gov/content/assets/docs/CGSRfiveDIGITAL.pdf>
	+ <https://cgsr.llnl.gov/content/assets/docs/Daedalus_Sp20_5_Roberts.pdf>

***Week 15***

**Monday, April 18 – Discussion: Challenging the Existing Regime**

* Background Materials:
	+ George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, “A World Free of Nuclear Weapons.” *The Wall Street Journal*, January 4, 2007. <https://www.wsj.com/articles/SB116787515251566636>
	+ Schelling, Thomas C. "A world without nuclear weapons?" *Daedalus*138, no. 4 (2009): 124-129.
	+ Additional readings TBD.
* **Assignment:** Group Memo Due – Upload to Canvas

**Part IV: Project Presentations and Course Conclusions**

**Wednesday, April 20 – Final Presentations**

* Group presentations of final project

***Week 16***

**Monday, April 25 – Last Day of Class**

* Winning Group Presentation to Nuclear Threat Initiative
* Alternate: Final class discussion
* Details TBD

**Final Group Papers Due: Friday, April 29th 2:10pm – Upload to Canvas**

1. Student Code of Conduct.” <https://policylibrary.gatech.edu/student-life/student-code-conduct> (Accessed January 5, 2022). [↑](#footnote-ref-1)