



DETERRENCE THEORY AND PRACTICE II

SYLLABUS

AY 19

SCHOOL FOR ADVANCED NUCLEAR DETERRENCE STUDIES

**UNITED STATES AIR FORCE
AIR COMMAND AND STAFF COLLEGE
*21st Century Leaders for 21st Century Challenges***

**AIR COMMAND AND STAFF COLLEGE
MAXWELL AFB, AL**

FOREWORD

This syllabus for the Deterrence Theory & Practice II course for School of Advanced Nuclear Deterrence Studies (SANDS) at the Air Command and Staff College, January - March 2019, provides both an overview of the course narrative, objectives, and questions, as well as a detailed description of each lesson to assist students in their reading and preparation for lecture and seminar. Included herein is information about course methods of evaluation, schedule, and the fulfilment joint professional military education core goals.

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DETERRENCE THEORY & PRACTICE II COURSE OVERVIEW

COURSE DESCRIPTION

This is part two of a two-course sequence designed to introduce students to the origins and evolution of modern deterrence theory, strategy, and policy. This second part of the course examines nuclear deterrence in the post cold war world. In particular, it reassesses traditional lessons of deterrence given the changing geo-political context, examines new applications of deterrence, and explores the concepts of nuclear proliferation and non-proliferation.

COURSE OBJECTIVES

1. Comprehend the 21st century nuclear strategic environment.
2. Evaluate the applicability of cold war deterrence theory in a post-cold war context.
3. Analyze how non-state actors, cross-domain considerations impact deterrence.
4. Synthesize how nuclear weapons can function as tools of assurance and compellence.
5. Evaluate the implications of proliferation/nonproliferation debate.

COURSE QUESTIONS

1. How will nuclear weapons impact international politics in the 21st century?
2. How well do lessons learned in the cold war apply in the post-cold war world?
3. Under what conditions does the changing mix of international actors impact the United States' ability to use nuclear weapons to compel and deter?
4. What are the implications of proliferation/nonproliferation of nuclear weapons?

COURSE ORGANIZATION AND NARRATIVE

Deterrence Theory & Practice II seeks to prepare perceptive and judicious leaders for the 21st century challenges in the operationalization of nuclear deterrence. This course emphasizes the application of classical deterrence theory to modern policy and operational challenges.

Deterrence Theory & Practice II has four sections intended to introduce students to the changing mix of actors and policy questions present in the 21st century.

Section I acts as an introduction to the changing international environment at the end of the cold war, and assesses the lessons learned over the nearly fifty years of a nuclear capable world. This section also introduces students to the concept of the nuclear taboo, or the international norm of nuclear nonuse.

Section II requires students to examine the applicability of cold-war deterrence theory to the post-cold war strategic environment. Students will examine the use of nuclear security by smaller regional powers, the facility of a limited nuclear war against smaller nuclear powers. Students will also be asked to consider the various ways that deterrence can be assessed.

Section III expands on traditional deterrence theory to consider the broader range of strategic interests and issues that were considered after the fall of the Soviet Union. In this phase, students will assess the ways in which nuclear weapons can deter and are deterred in a cross domain

context. In addition, this section explores the ability to use nuclear weapons to deter non-state and irrational actors. Finally, this section encourages students consider the ways that nuclear weapons can act as an assurance or tool of compellence in international relations.

Phase IV examines the future of nuclear weapons, focusing on their proliferation and the measures taken to ensure that nuclear weapons do not proliferate further. In this section, students will grapple with the question of nuclear drawdown, economic sanctions, and will be encouraged to reach their own understanding of the normative consequences of proliferation or nonproliferation.

JOINT LEARNING AREAS AND OBJECTIVES (JPME-1)

Deterrence Theory & Practice II addresses Intermediate-Level College Joint Learning Areas and Objectives for Joint Professional Military Education (JPME) established by the Chairman of the Joint Chiefs of Staff via the Officer Professional Military Education Policy (OPMEP), CJCSI 1800.01E, signed 29 May 2015. The course supports the following Joint Professional Military Education, Service-Intermediate Level College Joint Learning Areas and Objectives, listed below with points of explanation:

Learning Area 1 – National Military Capabilities, Command Structure, and Strategic Guidance

- a. Comprehend the capabilities and limitations of U.S. military forces to conduct the full range of military operations in pursuit of national interests.
 - DTPII-503 addresses the nuclear superiority debate surrounding the nuclear arsenal of the United States which far exceeds the standards required for mutually assured destruction. The assigned reading, *The Logic of Nuclear Strategy* by Kroenig examines the need for nuclear superiority and the modern U.S. strategic posture in the context of superiority-brinkmanship.
 - DTPII-506 considers ways in which deterrence is measured. Specifically, the assigned articles consider the ability and utility to quantitatively measure the deterrence capacity of our nuclear capabilities.
 - DTPII-507 addresses cross domain deterrence, the ability to deter actors across different capabilities.
 - DTPII-511 addresses modern deterrence challenges, including the push for global zero. In this seminar, students will be challenged to consider the implications for reduction or elimination of the nuclear capabilities. In addition, students will also consider the capabilities and limitations of missile defense systems.
- f. Comprehend strategic guidance contained in documents such as the national security strategy, the Quadrennial Defense Review, national military strategy, Guidance for Deployment of the Force, and Guidance for Employment of the Force.
 - DTPII-511 addresses modern deterrence challenges. In this section, students will read the 2018 Nuclear Posture Review.
 - DTPII-12 addresses nuclear proliferation. For this seminar, students will read the Nuclear Non-proliferation treaty, and will be encouraged to compare this treaty, to which the United States is signatory to the 2017 Nuclear Ban Treaty (read on DTPII-502), to which the United States has pledged to never become party to.

- DTPII-13 addresses counter-nuclear proliferation campaigns. In this seminar, students will read the Joint Comprehensive Plan of Action, from which the United States recently withdrew.

Learning Area 2 – Joint Doctrine and Concepts

- e. Comprehend the fundamentals of traditional and irregular warfare
 - DTPII-501 addresses the use of classical deterrence theory to the 21st century strategic environment. In reading *The Second Nuclear Age* by Bracken, students are pushed to question the relative utility of nuclear weapons in the post-Cold War world.
 - DTPII-510 addresses the use of nuclear deterrence for irregular warfare and in a world populated with irrational actors. The assigned reading, *Complex Deterrence* by Paul examines the potential for nuclear deterrence usage against a wide variety of scenarios, including terrorism, new nuclear actors, and asymmetric warfare.

Learning Area 3 – Joint and Multinational Forces at the Operational Level of War

- e. Comprehend the relationships between all elements of national power and the importance of the whole of government response, multinational cooperation, and building partnership capacity in support of homeland security and defense.
 - DTPII-505 addresses the issue of limited nuclear war in the 21st century. The assigned reading, *On Limited Nuclear War* by Larsen and Kartchner, explores the ability to practice a limited nuclear conflict in strategic environment that includes regional nuclear powers and “rogue” states. Students will consider the approaches the United States can/will take in response to nuclear crisis given the increased complexity of the strategic environment in the 21st century.
 - DTPII-508 addresses the use of nuclear weapons in achieving political objectives, like coercing a target state to act in a particular way. The reading, *Nuclear Weapons and Coercive Diplomacy* by Sechser and Fuhrmann examines when nuclear coercion might be effective. Students will consider how nuclear coercion can act in concert with other governmental responses in achieving desired political outcomes.
 - DTPII-509 addresses the use of nuclear weapons in achieving political assurances for allies. Students will read *Security Assurances and Nuclear-Nonproliferation* by Knopf and consider the ways in which multinational cooperation and partnerships might be enhanced by nuclear assurances to prevent nuclear proliferation.

Learning Area 4 – Joint Planning and Execution Processes

- f. Comprehend the roles that factors such as geopolitics, geostrategy, society, region, culture, and religion play in shaping planning and execution of joint force operations across the range of military operations, to include traditional and irregular warfare.
 - DTPII-504 addresses regional nuclear strategy. The reading, *Nuclear Strategy in the Modern Era*, by Narang explores how small regional actors create nuclear strategy. Students will be asked to consider how the differences in strategy between regional nuclear powers and our own nuclear strategy may impact the ability to respond to crises and conflicts with these actors.
 - DTPII-509 addresses the use of nuclear weapons in assuring political and military allies. In this seminar, students will be required to consider the ways in which

geopolitics impacts the utility and assurance provided by the U.S. nuclear umbrella.

Learning Area 5 – Joint Operational Leadership

- c. Comprehend the ethical dimension of operational leadership and the challenges that it may present.
 - DTPII-502 addresses the norm of nuclear non-use. The reading, *The Nuclear Taboo* by Tannenwald introduces the reasoning behind why no state has used nuclear weapons in warfare since 1945. Students will be asked to grapple with the reasoning behind the norm and the United States' position as non-signatory to the 2017 Nuclear Ban Treaty. In addition, students will be asked to confront the ethical issues surrounding the use and possession of nuclear weapons.
 - DTPII-512 addresses nuclear proliferation. The reading, *The Spread of Nuclear Weapons: An Enduring Debate*, edited by Sagan and Waltz encompasses arguments both for and against the proliferation of nuclear weapons. Students will be asked to develop a personal stance on the issue and to be able to articulate the weaknesses of that stance.

In addition, the course supports the following Joint Professional Military Education, Special Areas of Emphasis, listed below with points of explanation:

Learning Area 2 – Strategic Deterrence in the 21st Century/Deterrence and Escalation Dynamics

1. Deterrence Theory: An evolution of the “escalation ladder” (being filled in by asymmetric caps and limited nuclear concepts), “waves” of deterrence theory (retaliation, rational actor model, perceptions/misperceptions), and extended deterrence commitment (nuclear umbrella).
 - DTPII-505 addresses the issue of limited nuclear war in the 21st century. The assigned reading, *On Limited Nuclear War* by Larsen and Kartchner, questions the ability to practice a limited nuclear conflict in strategic environment that includes regional nuclear powers and “rogue” states. Students will consider the applicability of Cold War limited nuclear war theory to the 21st century.
 - DTPII-510 addresses the rational actor model used in deterrence theory. The 21st century is filled with nontraditional threats, including non-state actors, terrorist organizations, and irrational actors. In this seminar, students read *Complex Deterrence*, by Paul et al. which questions the ability to apply classical deterrence theory in situations that do not meet the assumption of rational actors.
 - DTPII-509 addresses the extended deterrence commitment (the nuclear umbrella). In this seminar, students read *Security Assurances and Nuclear Nonproliferation* by Knopf. During this seminar, students learn to differentiate between deterrence and assurance and considers the effectiveness of nuclear assurance in achieving nuclear nonproliferation.
2. Escalation risk: Deterring military conflict, interwar deterrence objectives, and reestablishing deterrence after a major deterrence failure
 - DTPII-501 addresses escalation risk in the 21st century. During this seminar, students will read *The Second Nuclear Age: Strategy, Danger, and the New Power Politics* by Paul Bracken. In the text, Bracken uses war games to predict

the outcome of nuclear crises and concludes that crises in the 21st century are likely to be much more dangerous than during the Cold War. Students will consider both the applicability of cold war deterrence theory to these scenarios and will assess Bracken's conclusions to draw their own conclusions about how well scholars and policymakers can predict the outcome of nuclear crises.

- DTPII-506 addresses deterrence of military conflict by examining the principle of Mutually Assured Destruction (MAD) an era of U.S. nuclear primacy.
3. Application: competition between deterrence and assurance, global conflict and balancing resources to meet national level and DoD objectives, and what can we do today-integration of campaign and contingency plans.
- DTPII-509 addresses the extended deterrence commitment (the nuclear umbrella). In this seminar, students read *Security Assurances and Nuclear Nonproliferation* by Knopf. During this seminar, students learn to differentiate between deterrence and assurance and consider the use of nuclear punishment as tool of statecraft of achieve desired outcomes.
4. Deterrence in the 21st century: Trans-Regional and cross domain deterrence (both deterring threats from cross-domain capabilities and applying non-nuclear capabilities and methods, to include deterrence by denial and forward presence, to deter nuclear threats), reducing reliance on nuclear weapons, and proliferation implications.
- DTPII-504 addresses trans-regional deterrence. The rise of regional nuclear powers brings into question the similarities and differences in how smaller, regional powers use nuclear weapons when compared to the Cold War superpowers. During this seminar, students read *Nuclear Staregy in the Modern Era*, by Vipin Narang, and consider the different strategies used by a number of regional nuclear powers.
 - DTPII-506 addresses deterrence in the 21st century, or an era of missile defense systems. By exploring the ABM treaty and the withdrawal of the United States, student will summarize the challenges of practicing deterrence in a world that advocates for missile defense systems.
 - DTPII-507 addresses cross domain deterrence. In this seminar students assess deterrence of other weapons of mass destructions, including chemical and biological weapons, and in the cyber, maritime, and space domains. Through this seminar, students will work to construct a framework in which nuclear weapons can operate as a cross domain deterrence tool.
 - DTPII-511 addresses issues of nuclear proliferation, introducing students to the classic debate about whether nuclear proliferation will or will not cause a more stable international system. Students will read *The Spread of Nuclear Weapons: An Enduring Debate*, edited by Scott Sagan and Kenneth Waltz, which brings together a collection of arguments both for and against nuclear proliferation. In this seminar, students will be required to identify and effectively argue for and against both sides of this debate.
 - DTPII-513 addresses the issue of nuclear proliferation, exploring how, when, and why states pursue and create nuclear capability. In this seminar, students will explore the Pakistani case in depth, and will identify the processes by which states seek and obtain nuclear weapons. Students will also develop an understanding of what policies have been successful in deterring proliferators at varying points in

the production process and be able to provide a critique of current nonproliferation strategies.

5. At the intermediate level, Joint Service contributions and multimodal deterrence concepts at the operational level of war.

Learning Area 5 – The need to enhance Countering Weapons of Mass Destruction (CWMD) awareness

- Officers at the intermediate level should comprehend and apply joint service CWMD capabilities and contributions at the operational level of war.

COURSE REQUIREMENTS

- 1. READINGS.** Before lecture and seminar, students are expected to complete all assigned readings for the day. Students are encouraged to read the explanation given in the syllabus before reading the assigned books and articles.
- 2. LECTURES.** Students will attend faculty lectures relating to assigned readings and seminar. These presentations compliment the readings and seminar discussion, and therefore enhance knowledge of the course concepts. Lectures are not for attribution.
- 3. SEMINAR PARTICIPATION.** Student participation in seminar discussions is vital to the success of the course. Students must prepare for each seminar by completing all of the assigned readings. Each member of seminar is expected to contribute to the discussion.
- 4. WRITTEN ASSIGNMENTS.** There are two written assignments in fulfillment of the requirements of the Deterrence Theory & Practice II course: one 4 page take-home examination; and one five-page white paper. Importantly, all written work must include as the first citation an acknowledgement of colleagues who made an intellectual contribution to the work.
- 5. METHODS OF EVALUATION.** The 4 page word take-home examination is worth 30 percent of the final course grade; the five-page white paper is worth 40 percent of the final course grade and the information briefing is worth 30 percent of the final course grade. In addition, students will be required to give an oral information briefing on the final day of class covering the topic of their white paper. The information briefing is worth 30 percent of the final course grade.

COURSE ADMINISTRATION

There are two types of readings in this course: 1) readings from books issued by ACSC; and 2) selected chapters and articles posted on Canvas. To avoid confusion, the syllabus denotes all readings posted online as “EL” (“electronic”). Students can access the syllabus, course calendar, and selected readings as well as other supplemental materials online.

ACSC provides students with the following books:

Bracken, Paul. *The Second Nuclear Age: Strategy, Danger, and the New Power Politics*. Macmillan, 2012.

Kroenig, Matthew. *The Logic of Nuclear Strategy: Why Strategic Superiority Matters*. Oxford University Press, 2018.

Roberts, Brad. *The Case for US Nuclear Weapons in the 21st Century*. Stanford University Press, 2015.

Paul, Thazha V., Patrick M. Morgan, and James J. Wirtz, eds. *Complex deterrence: Strategy in the global age*. University of Chicago Press, 2009.

Narang, Vipin. *Nuclear strategy in the modern era: Regional powers and international conflict*. Princeton University Press, 2014.

Larsen, Jeffrey A., and Kerry M. Kartchner. *On limited nuclear war in the 21st century*. Stanford University Press, 2014.

Sechser, Todd S., and Matthew Fuhrmann. *Nuclear Weapons and Coercive Diplomacy*. Cambridge University Press, 2017.

Sagan, Scott Douglas, and Kenneth Neal Waltz. *The spread of nuclear weapons: an enduring debate*. WW Norton & Company, 2013.

Khan, Feroz. *Eating grass: The making of the Pakistani bomb*. Stanford University Press, 2012.

Solingen, Etel, ed. *Sanctions, statecraft, and nuclear proliferation*. Cambridge University Press, 2012.

Knopf, Jeffrey W., ed. *Security assurances and nuclear nonproliferation*. Stanford University Press, 2012.

Tannenwald, Nina. *The nuclear taboo: The United States and the non-use of nuclear weapons since 1945*. Vol. 87. Cambridge University Press, 2007.

Please refer any questions to Dr. Kathryn Boehlefeld (kathryn.boehlefeld@us.af.mil)

DETERRENCE THEORY & PRACTICE II COURSE SCHEDULE

DAY 1 – DETERRENCE IN THE SECOND NUCLEAR AGE

DATE: 8 January 2019

LESSON OBJECTIVES

1. Comprehend the changes in the strategic environment from the Cold War to the Post-Cold War World.
2. Comprehend the importance of rivalries in a world with an increased number of nuclear powers.
3. Evaluate the extent to which nuclear weapons strategy, tactics, and policy will differ to the extent that Bracken suggests.
4. Evaluate the efficacy of war-games in predicting nuclear the outcome of nuclear crises.

LESSON OVERVIEW

DTPII-501 (S): The Second Nuclear Age

Overview: How will nuclear weapons impact International Politics in the post-Cold War era? Is there truly a difference between the first and second nuclear age as distinct as Bracken suggests? How does the United States' unipolar status change our calculations about deterrence? Is the world really more vulnerable to nuclear crisis today than during the Cold War? The readings in this section encourage students to consider the impact of the changed security environment after the Cold War in how, when, and why nuclear weapons may be used in the world. The aim of this seminar is to set the stage for the remainder of the course by encouraging students to consider what has changed and what has stayed the same in the Cold War.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

Paul Bracken, *The second nuclear age: Strategy, danger, and the new power politics*, ALL.

SUPPLEMENTARY READINGS

1. Allison, Gharam “Conceptual Models and the Cuban Missile Crisis” in Ikenberry, G. John and Peter L. Trubowitz, eds. (2014) *American Foreign Policy: Theoretical Essays*, 7th edition. Oxford: Oxford University Press, chapter 19 “EL”
2. Mearsheimer, John J. 1990. Why we will soon miss the cold war (Europe prepares to return to the multi-polar system that, between 1648 and 1945, bred one destructive conflict after another). *Atlantic* 266 (2): 35. “EL”
3. Wohlforth, William C. 1999. “The Stability of a Unipolar World” *International Security* 24 (1): 5. “EL”

DAY 2 – NUCLEAR NORMS AND LAW

DATE: 11 JANUARY 2019

LESSON OBJECTIVES

1. Comprehend the concept of the nuclear taboo
2. Evaluate critically the reasons behind nuclear non-use since 1945.

LESSON OVERVIEW

DTPH-502 (S): Nuclear Norms and Law

Overview: Why have all states eschewed the use of nuclear weapons since 1945? Can it really be explained by deterrence theory or is it based on a wider held international norm against nuclear warfare? Under what conditions might nuclear war be justified? In her book, Tannenwald argues that nuclear non-use is best explained by a widespread inhibition on using nuclear weapons, or what she terms a nuclear taboo. This seminar encourages students to question whether deterrence or norms best explain nuclear nonuse in the 21st century.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Tannenwald, *The Nuclear Taboo*, ALL.
2. 2017 Ban Treaty

SUPPLEMENTARY READINGS

1. Fey, M., AE Poppe, and C. Rauch. 2016. The nuclear taboo, battlestar galactica, and the real world: Illustrations from a science-fiction universe. *Security Dialogue* 47 (4): 348-65. "EL"

DAY 3 – THE SUPERIORITY DEBATE

DATE: 15 January 2019

LESSON OBJECTIVES

1. Analyze the concepts outlined in *The Logic of American Nuclear Strategy* by Matthew Kroenig
2. Synthesize the lessons learned from Cold War Crises
3. Evaluate the suggestions guidance offered in the book for policymakers on strategic nuclear posture design.

LESSON OVERVIEW

DTPH-503 (S): The Relevance of Cold-War Deterrence

Overview: Throughout the Cold War, the policymaker perspectives regarding massive retaliation and mutually assured destruction fluctuated. The United States emerged from the Cold War with a refusal to publicly declare a “no first strike” policy and a nuclear arsenal that far exceeded the second strike capability required to fulfill mutually assured destruction. Today, these questions of nuclear superiority remain unsettled. Does nuclear (or strategic) superiority matter? Why does the United States consistently have a strategic posture that far exceeds a second strike capability? This seminar requires students consider the theory of superiority-brinkmanship and the effects of the nuclear balance of power in international politics.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Matthew Kroenig, *The Logic of Nuclear Strategy*, ALL.

SUPPLEMENTARY READINGS

DAY 4 – REGIONAL NUCLEAR STRATEGY

DATE: 18 JANUARY 2019

LESSON OBJECTIVES

1. Analyze, by comparing and contrasting, how regional nuclear powers use nuclear weapons as a tool of statecraft.
2. Evaluate the nuclear postures of Pakistan, India, China, France, Israel, and South Africa.
3. Evaluate the relative success of different nuclear strategies.

LESSON OVERVIEW

DTPH-504 (S): Regional Nuclear Strategy

Overview: The Scope the Cold War has led scholars and practitioners to a myopic focus in their understanding of nuclear posture, with major studies concentrated primarily or solely on super power nuclear interactions. This seminar requires students to consider the non-superpowers, or regional powers that make up an important set of actors in the 21st Century. In this seminar, students should question: Which nuclear postures have regional powers adopted and why? What are the ramifications of these choices? Do particular nuclear strategies deter conflict better than others? How do we know? Is there such a thing as unequal deterrence?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Vipin Narang, *Nuclear Strategy in the Modern Era*, ALL.

SUPPLEMENTARY READINGS

DAY 5 – LIMITED NUCLEAR WAR

DATE: 22 JANUARY 2019

LESSON OBJECTIVES

1. Comprehend the Cold War meaning of limited nuclear war
2. Analyze the applicability of the concepts of limited war to the current threat environment
3. Evaluate the potential impacts of limited nuclear war for deterrence theory

LESSON OVERVIEW

DTPH-505 (S): Limited Nuclear War

Overview: During the Cold War, policymakers believed that a nuclear conflict could be limited either in scope or in the manner it was conducted. But the premise of a limited nuclear war was based on the assumption that both sides were willing to work to keep the war limited. Today, the number of nuclear states is increasing, making the coordination needed to ensure a limited nuclear war more complex. Is it possible to have a limited nuclear war today? What would happen if a state used a nuclear weapon against the United States? How can the United States handle nuclear crisis situations? And does the changing number of nuclear powers spell the eventual end to the nuclear taboo?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Larsen and Kartchner, *On Limited Nuclear War*, ALL.

SUPPLEMENTARY READINGS

1. Kroenig, Matthew. 2013. "Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes" *International Organization* 67(1): 141-171 "EL"
2. Powell, Robert. 1989. "Nuclear Deterrence and the Strategy of Limited Retaliation" *American Political Science Review*. 83(2): 503-519 "EL"

DAY 6 – ASSESSING DETERRENCE

DATE: 25 JANUARY 2019

LESSON OBJECTIVES

1. Comprehend how deterrence can be assessed quantitatively.
2. Comprehend how deterrence can be assessed qualitatively.
3. Evaluate the extent to which these two methodologies are useful in studying deterrence.
4. Apply findings from studies to make empirically sound policy recommendations.

LESSON OVERVIEW

DTPH-506 (S): Assessing Deterrence

Overview: Effective scholarship depends on effective measurement? How can we measure deterrence? What can quantitative studies of deterrence tell us that case studies cannot? What are the validity, reliability and empirical challenges of assessing deterrence quantitatively? What are the challenges to assessing deterrence qualitatively? What are the comparability, contextual, and interpretive challenges to assessing deterrence qualitatively? This session requires students to critically consider the methodological challenges to studying deterrence.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Lebow, Richard Ned, and Janice Gross Stein. "Deterrence: The Elusive Dependent Variable." *World Politics* 42, no. 3 (1990): 336-69. "EL".
2. Bell, Mark S. and Nicholas L. Miller. 2015. "Questioning the Effect of Nuclear Weapons on Conflict" *Journal of Conflict Resolution*. 59:1, pp. 74-92. "EL"
3. Kapur, S. Paul. 2003. "Nuclear Proliferation, The Kargil Pact, and South Asian Security." *Security Studies*. 13:1, pp 79-105. "EL"

SUPPLEMENTARY READINGS

DAY 7 – CROSS DOMAIN DETERRENCE

DATE: 29 JANUARY 2019

LESSON OBJECTIVES

1. Comprehend the concept of cross domain deterrence.
2. Evaluate the domains in which deterrence might be an effective tool of statecraft.
3. Create a framework in which nuclear weapons can operate as a cross domain deterrence tool.

LESSON OVERVIEW

DTPH-507 (S): Cross Domain Deterrence

Overview: The increasing complexity of the 21st century threat landscape differs significantly from the bilateral nuclear bargaining of classical deterrence theory. In what ways can we expect the U.S. nuclear deterrent to coerce adversaries in other operational domains? To what extent can classical deterrence theory be applied in other domains? How will cross domain deterrence impact U.S. alliances in key regions, like East Asia? This seminar pushes students to consider the applicability and theoretical limits of classical deterrence theory as it applies to cross domain deterrence and requires them to consider how we might conceptualize and theorize about cross domain deterrence given our contemporary strategic environment.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Lindsay, Jon and Erik Gartzke. 2016. “Cross-Domain Deterrence as a Practical Problem and a Theoretical Concept” *draft chapter from their forthcoming book* “EL”
2. Sagan, Scott D. 2000. “The Commitment Trap: Why the United State Should Not Use Nuclear Weapons to Deter Biological and Chemical Weapons Attacks” *International Security* 24(4): 85-115. “EL”
3. Harold, Scott W., Yoshiaki Nakagawa, Junichi Fukuda, John A. Davis, Keiko Kono Dean Cheng, Kazuto Suzuki. 2017. “The U.S.-Japan Alliance and Deterring Gray Zone Coercion in Maritime, Cyber, and Space Domains” Santa Monica: The Rand Corporation. “EL”

SUPPLEMENTAL READINGS

DAY 8 – NUCLEAR WEAPONS AND COERCION

DATE: 5 FEBRUARY 2019

LESSON OBJECTIVES

1. Comprehend coercion and differentiate it from deterrence
2. Analyze, by comparison, the facility of nuclear weapons as a coercive tool in various policy situations
3. Create an assessment tool for when to recommend to policymakers that nuclear weapons be used in a coercive manner

LESSON OVERVIEW

DTPH-508 (S) – Nuclear Weapons Beyond Deterrence

Overview: Traditionally, nuclear weapons are seen as a useful tool in deterring states from acting in a particular way. However, to what extent can nuclear weapons be used coercively? In what contexts might states wield their nuclear arsenals to bring about desired action by adversaries? As blackmail? In times of crisis bargaining? To forcefully end territorial disputes? In this seminar, students are encouraged to consider the ways in which the threat of nuclear punishment can or does coerce states into acting in particular ways.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Sechser and Fuhrmann, *Nuclear Weapons and Coercive Diplomacy*, ALL.

SUPPLEMENTARY READINGS

1. Beardsley, Kyle and Victor Asal. 2009. “Winning with the Bomb” *The Journal of Conflict Resolution* 53(2): 278-301.

DAY 9 – DETERRENCE AND ASSURANCE

DATE: 8 FEBRUARY 2019

LESSON OBJECTIVES

1. Analyze the relationship between deterrence and assurance.
2. Synthesize a set of lessons from past uses of nuclear assurance to application to the current strategic environment
3. Evaluate the effectiveness of nuclear assurance in achieving nuclear nonproliferation

LESSON OVERVIEW

DTPH-509 (S): Deterrence and Assurance

Overview: While scholars and policymakers often focus on how nuclear weapons can deter or coerce states, nuclear weapons may also be used to assure states—or make states (both allies and adversaries) feel more secure. Since the Cold War, the United States has persuaded other states to forgo nuclear proliferation by offering protection under its “nuclear umbrella.” What is the potential utility of such nuclear assurances in the 21st century? While it has been used as a way to persuade states to eschew nuclear proliferation in the past, will it work against potential proliferators today? How has nuclear assurance worked in past cases and what lessons can be drawn from these cases in using nuclear weapons as a tool of security assurance moving forward?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Knopf, *Security Assurances and Nuclear Non-Proliferation*, ALL.

SUPPLEMENTARY READINGS

DAY 10 – TAILORING DETERRENCE

DATE: 15 FEBRUARY 2019

LESSON OBJECTIVES

1. Analyze, by comparing and contrasting, the applicability of classical deterrence theory to a variety of 21st Century challenges.
2. Synthesize the ways in which classical deterrence theory can be tailored to best achieve objectives in specific policy areas.
3. Create a framework in which to assess when and how classical deterrence theory should be modified (or not) when approaching specific policy situations.

LESSON OVERVIEW

DTPII-510 (S): Tailoring Deterrence

Overview: Deterrence as a policy choice is appealing to policymakers. But how far can classical deterrence theory, which assumes bilateral bargaining take us in the increasingly complex threat environment of the 21st century? Can deterrence be used in cases with irrational actors? In asymmetric warfare? Against terrorists? How will deterrence theory apply to new nuclear actors? How will changes in technology impact classical deterrence theory? In this seminar students are required to think critically about how far classical deterrence theory can be applied and to what extent we can tailor deterrence theory to the unique threats facing the United States today.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Paul et al, Complex Deterrence, ALL.

SUPPLEMENTARY READINGS

DAY 11 –CURRENT DETERRENCE CHALLENGES

DATE: 18 FEBRUARY 2019

LESSON OBJECTIVES

1. Comprehend the goals and logic of the “global zero” movement
2. Apply deterrence theory to disarmament policies to illustrate and critique strengths and weaknesses of such policies.
3. Synthesize the implications of disarmament policy on US nuclear strategy and be able to create clear and concise recommendations for policymakers on the topic

LESSON OVERVIEW

DTP (S): Deterrence and the Logic of Zero

Overview: The end of the Cold War and the United States’ as yet unchallenged status as global hegemon have brought a series of new deterrence questions to the surface. First, the “Global Zero” movement, aimed at ridding the world of nuclear weapons and supported by individuals such as Zbigniew Brzinski, former President Jimmy Carter, and Gen (Ret.) Anthony Zinni, emerged. Second, former President Bush withdrew from the Anti-Ballistic Missile Treaty and began national and theater missile defense programs. Finally, modern conflict occurs more and more frequently in the “grey zone.” What do all of these new challenges mean for deterrence theory and practice? How can policymakers and scholars grapple with these fundamental changes to the strategic calculus? If asked, what kinds of military advice might officers offer in response to such challenges?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Brad Roberts, The Case for Nuclear Weapons in the 21st Century, ALL
2. Karako, Thomas. 2017. “Homeland Missile Defense: How the United States got here” *Bulletin of Atomic Scientists*. 73:3, 159-166. “EL”
3. Banasik, Mirosław. 2017. “Building up State Strategic Restistance Against Hybrid Threats.” *Journal of Defense Resources Management* 8, (2): 50-63. “EL”

SUPPLEMENTARY READINGS

1. Lieber, Keir A. and Daryl G. Press. 2009. “The Nukes We Need: Preserving the American Deterrent” *Foreign Affairs* 88(3): 39-51 “EL”
2. Obama, Barack. 2008. Nobel Laureate Acceptance Speech “EL”
3. 2018 Nuclear Posture Review, executive summary “EL”
4. Gibilterra, John. 2015. Conditional deterrence and missile defense. *Comparative Strategy* 34 (1): 64-73.

DAY 12 – ARE MORE WEAPONS BETTER OR WORSE?

DATE: 22 FEBRUARY 2019

LESSON OBJECTIVES

1. Comprehend the different arguments for and against nuclear proliferation.
2. Evaluate arguments for and against nuclear proliferation
3. Create a personal stance on the issue, be able to defend the stance, and be able to articulate the weaknesses of that stance.

LESSON OVERVIEW

DTP (S): Are More Weapons Better or Worse?

Overview: The proliferation of nuclear weapons has always been an issue hotly debated by scholars and policymakers alike. Does an increase in nuclear armed states make the world a safer place through the expansion of mutually assured destruction or does it merely increase the probability of nuclear Armageddon?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Sagan and Waltz, *The Spread of Nuclear Weapons: An Enduring Debate*, ALL.

SUPPLEMENTARY READINGS

1. Nuclear Nonproliferation Treaty “EL”
2. Gavin, Farancis J. 2010. “Same As It Ever Was: Nuclear Alarmism, Proliferation, and the Cold War” *International Security* 34(3): 7-37 “EL”

DAY 13 – CAUSES AND CONSEQUENCES OF NUCLEAR PROLIFERATION

DATE: 26 FEBRUARY 2019

LESSON OBJECTIVES

1. Comprehend the processes by which states seek and obtain nuclear capability.
2. Evaluate the successes and failures of nuclear proliferators in historical and contemporary cases
3. Analyze what policies were successful in deterring proliferators at various points in the development process.
4. Evaluate critically current nonproliferation strategies

LESSON OVERVIEW

DTP (S): Causes and Consequences of Nuclear Proliferation

Overview: Why do states build nuclear weapons? How do state build nuclear weapons? How can we prevent states from “going nuclear?” This seminar introduces students to the in depth case study of Pakistan’s nuclear proliferation efforts, and requires them to synthesize the relative successes and failures of the program. Students are then required to consider what types of strategies best discourage proliferation and what types of strategies are best suited to stopping a potential or actual proliferator once it has begun working on a weapons grade nuclear program.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Kahn, *Eating Grass*, ALL.
2. Sagan, Scott D. 1996. “Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb” *International Security* 21(3): 54-86. “EL”

SUPPLEMENTARY READINGS

1. Schulte, Gregory. 2010. “Stopping Proliferation Before It Starts” *Foreign Affairs* 89(4): 85-95. “EL”
2. Yusuf, Moeed. 2009. “Predicting Proliferation: This History of the Future of Nuclear Weapons” Washington D.C.: Brooking Institute. “EL”
3. Joint Comprehensive Plan of Action, main text “EL”

DAY 14 – PROLIFERATION AND COUNTER-PROLIFERATION

DATE: 1 MARCH 2019

LESSON OBJECTIVES

1. Comprehend economic sanctions as a tool of statecraft and as a tool of counter-proliferation
2. Synthesize the relative utility of sanctions as an inducement to forgo nuclear proliferation
3. Evaluate the context in which economic sanctions are the best tool for counter-proliferation when considered alongside other potential policy options.

LESSON OVERVIEW

DTP (S): Proliferation and Counter-Proliferation

Overview: Economic sanctions have been used against nuclear proliferators as a form of “punishment” to coerce them into abandoning their weapons grade nuclear programs for several decades with varying levels of success. In this seminar, students are introduced to the variety of cases in which sanctions have been applied and are encouraged to develop and understanding of the relative utility of economic sanctions as a tool to prevent nuclear proliferation, by considering the following questions. When and where have economic sanctions been successful? What factors drive economic sanction success in nuclear cases? Are economics sanctions the most effective tool for deterring states from pursuing nuclear weapons? When might economic sanctions be used most effectively? When should they be avoided in favor of other policy options?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Solingen, *Sanctions, Statecraft, and Nuclear Proliferation*, ALL.
2. Baldwin, David Allen. 1985. *Economic Statecraft*. Princeton: Princeton University Press, Chapter 4. “EL”

SUPPLEMENTARY READINGS

Day 15 – INFORMATION BRIEFINGS

DATE: 5 MARCH 2019

LESSON OBJECTIVES

1. Practice giving information briefings

LESSON OVERVIEW

DTPH - 515 (E): Information Briefings

Overview: During this class period, students will be required to give a ten minute information briefing on the topic of their white paper.

CONTACT HOURS: 3.0-hour seminar