



***WAR THEORY:
THE EVOLUTION OF WAR AND
MILITARY THOUGHT***

SYLLABUS

AY 21

**JOINT PROFESSIONAL MILITARY EDUCATION
PHASE I INTERMEDIATE LEVEL COURSE**

**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 War Theory course at the Air Command and Staff College, August-September 2020, provides 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 of Joint professional military education core goals.

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TABLE OF CONTENTS

	PAGE
FOREWORD	1
TABLE OF CONTENTS	2
COURSE DESCRIPTION, QUESTIONS AND OBJECTIVES	3
COURSE ORGANIZATION AND NARRATIVE	3
JOINT LEARNING AREAS AND OBJECTIVES	5
AY 2020-2021 SPECIAL AREAS OF EMPHASIS	8
COURSE REQUIREMENTS	9
COURSE ADMINISTRATION	10
COURSE SCHEDULE	
DAY 0	12
DAY 1	15
DAY 2	17
DAY 3	19
DAY 4	21
DAY 5	22
DAY 6	25
DAY 7	27
DAY 8	29
DAY 9	32
DAY 10	34
DAY 11	36
DAY 12	38
DAY 13	40
DAY 14	41
DAY 15	43
APPENDIX: COURSE FACULTY	45

WAR THEORY COURSE OVERVIEW

COURSE DESCRIPTION

War Theory introduces military theory, addressing both the nature and character of war. It examines the theoretical writings of classical military theorists, as well as the evolution of warfare and military thought over the last two centuries. The course explores a number of the most outstanding historical cases of military innovation, assessing the utility of military theories to understanding conflict across the warfighting domains. The course also considers the evolution of warfare, analyzing both change and continuity in armed conflict. In applying military theory to contemporary security challenges, students will be better able to anticipate and respond to complex problems across the range of military operations.

COURSE OBJECTIVES

1. Comprehend both the nature and character of war, as well as continuity and change in warfare.
2. Relate military theory to an understanding of contemporary and future operational security challenges.
3. Comprehend the evolution of military theory across the warfighting domains over the last two centuries.

COURSE QUESTIONS

1. What is the nature of war?
2. How have military thought and the conduct of war evolved, in and through the warfighting domains, over the last two centuries?
3. How have war's fundamental nature and character endured and/or changed?
4. Which military theories are most relevant for understanding the nature and the character of war today and in the future?

COURSE ORGANIZATION AND NARRATIVE

War Theory seeks to prepare leaders of the Joint force to be “strategically minded, critical thinkers and skilled Joint warfighters.”¹ To this end, the course asks students to grapple with complex political, technological, economic, and social changes influencing the Profession of Arms over the last two centuries and, in turn, expand their thinking beyond the level of tactics to that of operations, strategy, and policy. This course stresses critical thinking about the role of the Profession of Arms in the contemporary environment. It drives students to think deeply about war, instilling in them the ability to anticipate and recognize change in armed conflict, and to communicate such understanding with clarity and precision.

War Theory has three phases, with each phase of the course organized around answering a core question about the nature and character of war. Phase I explores the nature of war, seeking to deepen students’ understanding of war as a political, social and cultural phenomenon, with its own fundamental purpose and logic. It introduces the classical military theorists— Thucydides,

¹ Chairman of the Joint Chiefs of Staff, *CJCS Visions for Joint Officer Development* (Washington, DC: Department of Defense, 2005), p. 2.

Antoine-Henri Jomini, Carl von Clausewitz, and Sun Tzu—as a way to comprehend the purpose, role, and function of armed forces.

Phase II of the course considers the evolution of theory and principles of war across the warfighting domains since the turn of the 20th century. It introduces students to the seminal theoretical contributions of J.F.C. Fuller, Heinz Guderian, Alfred Thayer Mahan, Julian S. Corbett, Giulio Douhet and J.C. Slessor. These theorists provide a framework to comprehend current Joint doctrine, as well the interrelationship between service doctrine and Joint doctrine. By exploring a number of historical cases of military operations, students gain a better understanding of the utility of military theory, as applied to operations across the warfighting domains.

Phase III of the course examines both contemporary and potential future military operations, analyzing both continuity and change in armed conflict. It presents the views of more recent theorists like Thomas C. Schelling, David Galula, and John R. Boyd. In this phase, students also explore the integration of operations in and through the space and cyber domains at the operational level of war. Students apply military theory to understand and address current and future operational challenges, thereby gaining a better understanding of the role of the Profession of Arms in the contemporary security environment. Students examine factors such as information, geopolitics, deterrence, society, culture, and religion in the planning and execution of Joint operations, while becoming more versed in the capabilities and limitations of US military forces to conduct the full range of military activities in pursuit of national interests.

In each of these phases, War Theory employs an interdisciplinary approach to the study of war, integrating the disciplines of philosophy, history, political science, security studies, and psychology with current Joint and service doctrinal concepts. The course methodology combines the study of foundational theories of war with application and close analysis of historical and contemporary case studies. Students thus derive lessons, concepts, and ideas as the basis for decision making in strategy, planning, and operations.

Each day's readings generally include both material directly from the theorists under consideration, and material that seeks to explain, contest or illustrate the theorists' main ideas. This methodological approach illustrates how theory and principles of war apply to the actual conduct of military operations. Case studies stress the importance of adaptation and innovation in military planning and execution, giving students the chance to evaluate and discuss the relative success or failure of past military leaders and planners. The cases also provide a means to examine the efforts of both civilian and military leaders to balance national objectives with risk and the means available, developing within students a better appreciation of relationships between national security objectives and their supporting military objectives, throughout the continuum of competition and conflict.

At a time when the global security environment is growing more complex, it is critical for military professionals to develop their own understanding of theoretical concepts of war and prepare themselves intellectually for the successful management of violence on behalf of the state. The goal of War Theory is to provide such a preparation through the study of military

theory and historical and contemporary case studies, conceptualizing the wider social and political impact of change and continuity in war.

JOINT LEARNING AREAS AND OBJECTIVES (JPME I)

War Theory 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 Learning Areas and Objectives, listed below with points of explanation:

Learning Area 1 – National Military Capabilities Strategy

- a. Comprehend the capabilities and limitations of US military forces to conduct the full range of military operations in pursuit of national interests.
 - Lessons WT-510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528 discuss the capabilities and limitations of ground, naval, and air forces from both theoretical and historical contexts.
 - Lessons WT-517, 518, 519, 520, 523, 524, 525, 526, 527, and 528 discuss the role of nuclear weapons, space, and cyber capabilities in military operations.
 - Lessons WT-527 and 528 relate current US military capabilities and limitations to contemporary and future security challenges.

Learning Area 2 – Foundation of Joint Warfare and the Profession of Arms

- a. Comprehend current Joint doctrine.
 - All course lessons relate military theories and case studies to current Joint doctrine (see “related Joint doctrine”).
- c. Apply solutions to operational problems in a volatile, uncertain, complex or ambiguous environment using critical thinking, operational art, and current Joint doctrine.
 - All course lessons prepare students to think strategically about the range of military operations.
 - Lessons examine both continuity and change in the conduct of war.
 - Lessons relate military theory and operational art to historical and contemporary cases.
 - Written assignments WT-601, 602, and 603 relate military theory and operational art to contemporary and historical cases.
 - Lessons WT-517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 discuss the future of warfare, including the challenge of operating in a volatile, uncertain, complex, and ambiguous environment.

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

- a. Comprehend the security environment within which Joint Forces are created, employed, and sustained in support of JFCs and component commanders.
 - Lessons WT-510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 discuss the contemporary security environment.

- c. Comprehend the interrelationships among strategic, operational, and tactical levels of war.
 - All course lessons discuss the strategic, operational, and tactical levels of war, including continuity and change in the relationships between them.
 - In particular, lessons WT-515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 discuss whether particular military technologies can produce strategic effects.
- d. Comprehend how theory and principles of Joint operations pertain to the operational level of war across the range of military operations to include traditional and irregular warfare that impact the strategic environment.
 - All course lessons explain the theory and principles of Joint operation at the operational level of war, with lessons WT-506, 507, 508, 509, 510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527 and 528 covering the range of military operations.
 - In particular, lessons WT-521 and 522 discuss irregular warfare.
 - Written assignments WT-601 and 603 relate military theory and the principles of Joint operations to contemporary and historical cases.
- f. Analyze a plan critically for employment of Joint and multinational forces at the operational level of war.
 - Lessons WT-502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 explain theory as it relates to wartime operational plans. These lessons draw from both historical and contemporary cases.
- g. Comprehend the relationships between national security objectives, military objectives, conflict termination, and post conflict transition to enabling civil authorities.
 - Lessons WT-504 and 505 discuss the concept of decisive victory. WT-506, 507, 508, 509, 510, 511, 513, 514, 515, 516, 517, 518, 521, and 522 review the concept of decisive victory to understand historical and contemporary case studies.
 - Lesson WT-506, 507, 508, 509, 521 and 522 discuss political-military integration, whether the military means align with the achievement of political objectives, and issues of war termination.
 - Lesson WT-509, 519, 521 and 522 discuss indirect approaches to the achievement of both military objectives and national security objectives.
 - Lessons WT-506, 507, 525, 526, 527, and 528 discuss the issue of conflict termination and post-conflict transitions.

Learning Area 4 – Joint and Multinational Forces at the Operational Level of War

- a. Comprehend the relationship among national objectives and means available through the framework provided by the national levels systems.
 - Lessons WT-506, 507, 508, and 509 provide a theoretical understanding of the importance of reconciling the available means with national objectives.
- b. Comprehend the fundamentals of Joint operation planning across all the phases of a Joint operation.

- All lessons and grading instruments provide the theory and historical context to comprehend the fundamentals of Joint operational planning across all phases of a Joint operation.
- e. Comprehend the integration of information and cyberspace operations with other lines of operations at the operational level of war.
 - Lessons WT-523, 524, 525, 526, 527 and 528 discuss the integration of information operations and cyberspace operations with other lines of operations.
 - Lessons WT-523, 524, 525, 526 review the importance of strategic narrative and information operations in contemporary operations.
 - f. Comprehend the roles that factors such as geopolitics, geostrategy, society, region, culture/diversity, and religion play in shaping planning and execution of Joint force operations across the range of military operations.
 - Lessons WT-502, 503, 504, 505, 506, 507, 508, 509, 521, 522, 525, 526, 527, 528, 601 and 603 discuss the role of geopolitics, society, region, culture, and religion play in shaping the nature and/or character of war.

Learning Area 5 – Joint Command and Control

- c. Comprehend the effects of networks and cyberspace on the ability to conduct Joint Operational Command and Control.
 - Lessons WT-519, 520, 523, 524, 525, and 526 discuss the effects of networks and cyberspace on the ability to conduct Joint Operational Command and Control.

Learning Area 6 – Joint Operational Leadership and the Profession of Arms

- a. Comprehend the role of the Profession of Arms in the contemporary environment.
 - All course lessons provide the theoretical and/or historical basis for understanding the role of the Profession of Arms in the contemporary environment. In particular, the course considers both change and continuity in the Profession of Arms over the last two centuries.
 - Written Assignment WT-603 reviews the role of the Profession of Arms in the contemporary environment.
- b. Comprehend critical thinking and decision-making skills needed to anticipate and recognize change, lead transitions, and anticipate/adapt to surprise and uncertainty.
 - All course lessons emphasize critical thinking and decision-making skills, honing student abilities to think critically about operational challenges and speak articulately about them.
 - Lessons WT-504, 505, 506, 507, 508, 509, 510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 provide examples of theorists and practitioners anticipating and recognizing change in the conduct of war, whether the sources of such change are political, social, cultural, or technological.
 - Written assignments WT-601 and 603 prepare students to think and write critically about military operations.
- c. Comprehend the ethical dimension of operational leadership and the challenges it may present when considering the values of the Profession of Arms.

- Lessons WT-525, 526, 527, and 528 discuss the ethical dimension of operational leadership and the challenges of ethical leadership in contemporary operations.
- e. Communicate with clarity and precision.
- Writing assignments WT-512, 600, 601, 602, and 603 prepare students to think and write critically about military operations.
 - All lectures provide students with examples of critical thinking and clear communication.
 - All seminars provide the chance for students to become skilled in thinking and communicating clearly about military theory, strategy, operations, and policy.
- f. Analyze the importance of adaptation and innovation on military planning and operations.
- Lessons WT-504, 505, 506, 507, 508, 509, 510, 511, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, and 528 discuss the importance of adaptation and innovation on military planning and operations in both military theory and contemporary and historical cases.
 - Written assignments WT-601 and 603 explain the importance of adaptation and innovation on military planning and operations.

AY 2020-2021 SPECIAL AREAS OF EMPHASIS FOR JPME-1

War Theory supports the following AY 2020-2021 Special Areas of Emphasis (SAE) for Joint Professional Military Education (JPME), listed below with points of explanation:

SAE 1 – Global Integrated Operations in the Information Environment

- a. An understanding of the complexities and challenges of information to national security.
- Lessons WT-523, 524, 525, 526, 527, and 528 provide an understanding of the current strategic landscape.
 - All course lessons address the characteristics of the modern battlefield.

SAE 2 – Strategic Deterrence in the 21st Century

- a. Deterrence Theory: An evolution of the “escalation ladder” (being filled by asymmetric caps and limited nuclear concept), “waves” of deterrence theory (retaliation, rational actor model, perceptions, and misperceptions), and extended deterrence commitment (nuclear umbrella).
- Lessons WT-517, 518, 519 and 520 outline foundations of deterrence theory, including issues of extended deterrence and escalation dynamics.
- b. Escalation risk: Deterring military conflict, interwar deterrence objectives, and reestablishing deterrence after a major deterrence failure.
- c. 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.
- Lessons WT-520, 525, 526, 527, and 528 offer a theoretical and empirical understanding of cross-domain deterrence.

SAE 3 – Modern Electromagnetic Spectrum Battlefield

- a. Comprehend the integration of IO and cyberspace operations with other lines of operations at the operational level of war.
 - Lessons WT-523, 524, 525, and 526 discuss the relationship between the physical domains and cyber environment.

SAE 4 – Space Warfighting Domain

1. An understanding of the complexities and challenges of the space domain to national security.
 - Lessons WT-519 and 520 provide a theoretical understanding to explain the complexities and challenges of the space domain as it relates to national security.

SAE 5 – Return to Great Power Competition

1. A historical overview and modern analysis of the factors that influence great power competition.
 - Lessons WT-525, 526 527, and 528 provide a theoretical understanding of information operations, globally integrated campaigning and a return to great power competition. They explain the complexities and challenges of information operations as they relate to national security.

SAE 6 – Ability to Write Clear, Concise Military Advice Recommendations

1. Writing assignments WT-600, 601, and 603 prepare students to think and write in a concise manner, in order to provide clear and timely recommendations to civil and military authorities.

COURSE REQUIREMENTS

- 1. READINGS.** Before lecture and seminar, students must complete all assigned readings for the day. Students should read the explanation given in the syllabus before reading the assigned books and articles. The syllabus also provides information on current Joint doctrine, as it relates to the topic of the day. Students are encouraged to explore the connections between military theory, operational art, and current Joint doctrine.
- 2. LECTURES.** All course lectures are pre-recorded and will be available for students to watch at the beginning of the course. Students should watch these lectures in conjunction with the related assigned readings and seminar. These presentations complement the readings and seminar discussion, and therefore enhance knowledge of the course concepts. *In accordance with Air University policies, lectures are not for attribution.*
- 3. SEMINAR PARTICIPATION.** Student contribution to 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 the seminar is expected to contribute to the discussion.
- 4. WRITTEN ASSIGNMENTS.** One written, graded assignment and one written, ungraded assignment fulfill the requirements of the War Theory course:

WT-600E - A single-page, ungraded response paper;

WT-601E: A 6-8 page final paper, worth 50 percent of the final course grade. Students must consult the Air University Style Guide and ACSC Student Guide for information regarding proper formatting and citation requirements.

- 5. IN-CLASS GROUP PRESENTATION.** On Day 11, students will present a graded, 15-20 minute group briefing to the seminar (**WT-602E**), analyzing a case study in irregular warfare using the theories of Mao Tse Tung and David Galula, as well as ideas from any of the theorists read and discussed up to that point in the course. *The grade for this briefing will be a group grade, and will be worth 30 percent of the final course grade.* Course instructors will assign these presentations on Day 1.
- 6. COURSE CONTRIBUTION.** Students will be graded on individual contributions to the seminar and learning of the class (**WT-603E**). This grade will be worth 20 percent of the final course grade, and will consist of an assessment of seminar preparation and quality discussion contribution, and collaborative work with colleagues such as assistance with writing.
- 7. METHODS OF EVALUATION.** WT-601E is worth 50 percent of the final course grade; WT-602E is worth 30 percent of the final course grade; WT-603E is worth 20 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 on Canvas as “EL” (“electronic”). Students can access the syllabus, course calendar, and selected readings, as well as other supplemental materials on Canvas. In addition, lecture slides will be posted no later than 48 hours following the lecture.

The syllabus includes sections on “related Joint doctrine” for all course lessons. Students are encouraged to read the related Joint doctrine. Both course lectures and seminars will discuss the connections between military theory and current Joint doctrine. Online, students will find a supplementary packet containing the key Joint Warfighting Concepts (JWC), as they relate to this course. These documents are referred to as JWC 1-8 throughout this syllabus.

ACSC provides students with copies of the following course books, which must be returned at the conclusion of the course:

- Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Corbett, Julian S. *Some Principles of Maritime Strategy*. Mineola, NY: Dover Publications, Inc., 2004 [1911].
- Douhet, Giulio. *The Command of the Air*. Translated by Dino Ferrari. Washington, DC: Office of Air Force History, 1983.

- Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, CT: Praeger Security International, 2006 [1964].
- Gartzke, Eric, and John R. Lindsay, eds. *Cross-Domain Deterrence: Strategy in an Era of Complexity*. New York: Oxford University Press, 2019.
- Gordon, Michael R., and General Bernard E. Trainor. *The Generals' War: The Inside Story of the Conflict in the Gulf*. Boston: Little, Brown and Company, 1995.
- Howard, Michael. *War in European History*. Oxford: Oxford University Press, 2009 [1976].
- Liddell Hart, Basil H. *Strategy (2nd revised edition)*. New York: Penguin Books, 1991.
- Olsen, John Andreas, ed. *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd*. Annapolis, MD: Naval Institute Press, 2015.
- Paret, Peter, ed. *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. Princeton, NJ: Princeton University, 1986.
- Pinker, Steven. *The Better Angels of Our Nature: Why Violence Has Declined*. New York: Penguin, 2011.
- Schelling, Thomas C. *Arms and Influence*. New Haven, CT: Yale University Press, 2008 [1966].
- Slessor, John C. *Air Power and Armies*. Tuscaloosa, AL: University of Alabama Press, 2009 [1936].
- Strassler, Robert, ed. *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*. New York, NY: The Free Press, 1996.
- Tzu, Sun. *The Art of War*. Translated by Samuel Griffith. Oxford: Oxford University Press, 1963.

Please refer any questions to:

- Course Director: Dr. James Campbell (Email: james.campbell.91@us.af.mil; Office: rm. 154B)
- Deputy Course Director: LTC Ryan Reid (Email: ryan.reid.4@us.af.mil; Office: rm. 152)

WAR THEORY COURSE SCHEDULE

DAY 0 – COURSE INTRODUCTION

DATE: 7 August 2020

LESSON OBJECTIVES

1. Review the course objectives, course questions, and course narrative.
2. Review the course syllabus, methods of evaluation, and expectations for seminar.
3. Comprehend the purpose of military theory and history for the military professional.
4. Comprehend the distinction between the nature and character of war.

LESSON OVERVIEW

WT-500 (L): Course Overview (Campbell)

Overview: War Theory introduces military theory, addressing both the nature and character of war. This course examines the theoretical writings of classical military theorists, as well as the evolution of warfare and military thought over the course of the twentieth century. This lecture introduces students to the course objectives, schedule, and requirements, as well as the overall narrative and three phases of the course. Additionally, this lecture introduces the distinction between the nature and character of war, and addresses the contemporary relevance of military theory and history for the military professional.

CONTACT HOURS: 30-minute lecture

WT-501 (S): Course Introduction

Overview: In this seminar, instructors introduce themselves to their seminars, discuss classroom policies, and through an examination of the assigned readings for the day, set the stage for seminar discussions scheduled for Day 1.

CONTACT HOURS: 1.5-hour seminar

WRITTEN ASSIGNMENT

ASSIGNMENT FOR ONE-PAGE (UNGRADED) RESPONSE PAPER DISTRIBUTED (WT-600E).

FINAL PAPER ASSIGNMENT DISTRIBUTED (WT-601E)

REQUIRED READINGS

1. Milan N. Vego, "On Military Theory," *Joint Forces Quarterly* 62 (July 2011): 59-67. [EL]

[This article presents a definition of military theory and argues for the importance of understanding theory for the military professional. It serves as one of many potential frameworks for understanding theories presented to students during the course.]

2. Harold R. Winton, "An Imperfect Jewel: Military Theory and the Military Profession," *Journal of Strategic Studies* 34, no. 6 (December 2011): 853-877. [EL]

[This article presents a potential framework for understanding military theory and can be used by the students as a means of assessing theories and ideas they will encounter during the course.]

3. Joint Chiefs of Staff, *Doctrine for the Armed Forces of the United States, Joint Publication 1*, 12 July 2017, Chapter 1 (“Theory and Foundations”) and Appendix B (The Profession of Arms), B1-B3. [EL]

[This reading is the introductory chapter in the foundational Joint doctrine manual for the US military. It outlines fundamental principles of our doctrine, and makes explicit connections between much of the classical military theory contained in the course, and US doctrine. As you review the principles guiding the employment of US Joint forces, note the influence of the different military theories and theoretical concepts studied in this course. Appendix B reviews the fundamental principles of the US Military as part of the Profession of Arms].

RECOMMENDED READING (OPTIONAL)

None.

RELATED JOINT DOCTRINE

1. Joint Chiefs of Staff, *Doctrine for the Armed Forces of the United States, Joint Publication 1*, 12 July 2017, Appendix B, B1-B3. [EL]

PHASE I: WHAT IS THE NATURE OF WARFARE?

War as Human Nature, Science, and Politics

DAY 1 – WAR AS HUMAN NATURE

DATE: 10 August 2020

LESSON OBJECTIVES

1. Comprehend the different perspectives of Thucydides, Hobbes, and Locke on the relationship between human nature, government and war.
2. Relate the arguments of Thucydides, Hobbes, and Locke to discuss man's historical propensity for conflict.
3. Examine historical trends related to war, the reasons humans fight, and the importance of human nature for understanding the contemporary security environment.

LESSON OVERVIEW

WT-502 (L): Classical Thinkers on the Nature and Character of War (Price)

Overview: What can we learn from the classical thinkers about war and man's nature? Starting with the archaeological record, the lecture will introduce the debates, context and enduring influence of key thinkers including Thucydides, Vegetius, Machiavelli, Hobbes, Rousseau and Locke, touching also upon the foundation laid by Aristotle on the enduring relationship between art, science, creativity and innovation. It will show how these debates resonate into current thinking on the nature and character of war within history, the social sciences, and for the training and education of military professionals.

CONTACT HOURS: 1.0-hour lecture

WT-503 (S): War as Human Nature

Overview: Is war an inseparable part of human nature? Is war changing? If so, have we managed to escape our nature? The answers to these questions are critical for our understanding of war. The readings offer philosophical, historical, and political explanations for the continued resort to armed conflict throughout human history. The aim of the seminar is not to offer definitive answers to these complex questions, but to encourage students to explore and develop their own understandings of war.

CONTACT HOURS: 2.0-hour seminar

GROUP PRESENTATION ASSIGNMENT

ASSIGNMENT FOR GROUP PRESENTATION (WT 602E) DISTRIBUTED

REQUIRED READINGS

1. *The Landmark Thucydides*, ix-xxii, 3, 16-17, 42-45, 96-97, 124-129, 352-355, 408-410.

Historical Background: Thucydides' *The History of the Peloponnesian War* is perhaps the world's oldest known military history. Written over two thousand years ago, the book deals with the decades-long conflict between Athens and Sparta in the ancient world. In these selections, the author makes clear some of the classic motivations for war, what people and states expect from war, and some of the common results of war on people and societies.

2. Ebenstein, William and Alan, eds. *Great Political Thinkers: Plato to the Present*. 355-379 (selections from Thomas Hobbes, *Leviathan*), 380-407 (selections from John Locke, *Two Treatises of Government*). [EL]

Theory [Key Concept]: Hobbes asserts the “natural condition of mankind” is a state in which life is “solitary, poor, nasty, brutish, and short.” Is Hobbes right to depict human existence as a “war of all against all”? In other words, can human nature adequately explain the recurrence of war? Locke’s discussion of the state, and how it should operate given the inherent nature of man, is one of the most important works written on government in modern Western history. It forms much of the basis for how the founders of the United States thought about how to frame the new US government – what does Locke say about power and man’s nature?

RECOMMENDED READING (OPTIONAL)

1. Pinker, *The Better Angels of Our Nature*, 31-56.

Pinker examines classical arguments concerning the nature of man against the historical record and findings from anthropology, evolutionary biology, sociology, and psychology. Does the evidence better support the arguments of Thucydides, Hobbes or Locke, or is a new understanding of human nature and war needed?

RELATED JOINT DOCTRINE

1. Joint Publication 1, Appendix B (The Profession of Arms), B1-B3.

DAY 2 – WAR AS SCIENCE

DATE: 11 August 2020

LESSON OBJECTIVES

1. Comprehend elements of both continuity and change in warfare in the late 18th century and the wars of the French revolution and Napoleon.
2. Comprehend Jomini's fundamental principles of warfare, including offensive, objective, strategy, lines of operation, mass, maneuver, decisive points, and strategic combinations.
3. Discuss Jomini's scientific approach to war and its deep and abiding influence on Western militaries, especially in the United States.

LESSON OVERVIEW

WT-504 (L): Jomini and the Science of War (Hayworth)

Overview: Antoine-Henri de Jomini, a Swiss officer who rose to the rank of general of brigade in Napoleon's army before switching his allegiance to Russia in 1813, emerged as one of the earliest and most influential military scholars of the Napoleonic period. This lecture will provide an overview of Jomini's life and times to examine the formative influences that shaped his military theories. It will begin by looking at the nature and character of war in the eighteenth century. Careful study of the campaigns of the era, especially those of Frederick the Great of Prussia, helped Jomini develop his ideas about the principles of war. The lecture will also consider the impact of the Enlightenment and the French Revolution on Jomini's ideas and explore his relationship with Napoleon Bonaparte.

CONTACT HOURS: 1.0-hour lecture

WT-505 (S): War as Science

Overview: Jomini's seminal work, *The Art of War*, first appeared in 1838. Jomini, a product of the Enlightenment and the Age of Reason, applied the scientific method, as he understood it, to the study of warfare. His theories and principles remain some of the most influential ideas governing military operations in the Western world – especially in the United States. This seminar examines the writings of Jomini and their enduring influence on US military doctrine and American approaches to warfare. Are Jomini's principles for the employment of military force still applicable today? What might Jomini's ideas miss about war – both in its nature and evolving character?

CONTACT HOURS: 2.0-hour seminar

WRITTEN ASSIGNMENT

****ONE-PAGE (UNGRADED) RESPONSE PAPER WT-600E IS DUE****

REQUIRED READINGS

1. Howard, *War in European History*, 54-93.

Background [Strategic Context]: This reading on the Napoleonic period provides historical context to better understand the changes in European warfare influencing the ideas of both Jomini and Clausewitz.

2. Antoine-Henri de Jomini, *The Art of War*, 13-36, 66-104. [EL]

Theory [Key Concept]: Antoine-Henri de Jomini served as a commander and staff officer in the armies of Napoleonic France, and wrote extensively about military strategy and operations, attempting to capture in theory what made Napoleon Bonaparte one of the most revolutionary and successful military leaders in history. *The Art of War* is his most widely translated and well-known work. Note in his writing the connections to current concepts from our Joint doctrine.

3. Shy, “Jomini,” in *Makers of Modern Strategy*, ed. Paret, 164-185.

Refinement: This essay discusses Jomini’s intellectual and military experiences, and uses those as the context to outline his major theories and principles. Shy also examines the historical promulgation and perpetuation of Jomini’s ideas.

RECOMMENDED READINGS (OPTIONAL)

1. Guerlac, “Vauban: The Impact of Science on War,” in *Makers of Modern Strategy*, ed. Paret, 64-90.
2. Palmer, “Frederick the Great, Guibert, Bülow: From Dynastic to National War,” in *Makers of Modern Strategy*, ed. Paret, 91-119.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4; Chapter 3 (Joint Functions), III-1 to III-48; and Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3, Section B (Elements of Operational Design), III-18 to III-38. [JWC 5]

DAY 3 – War as Politics

DATE: 13 August 2020

LESSON OBJECTIVES

1. Comprehend Clausewitz's arguments about the relationship between politics and war, including the relationship between political objectives and military objectives in war.
2. Comprehend Clausewitz's views on the trinity, friction, centers of gravity (COG), absolute war vs. real war, the principle of continuity, limited war, and decisive victory.
3. Discuss Clausewitz's arguments about effective civil-military relations, specifically the responsibilities of statesmen and commanders.

LESSON OVERVIEW

WT-506 (L): "Professional Jominian" vs. "Natural Clausewitzian:" Generals Lee and Grant in the Chancellorsville and Wilderness/Overland Campaigns (T. Beckenbaugh)

Overview: Confederate General Robert E. Lee's victory at the Battle of Chancellorsville in May 1863 was perhaps his greatest. It also was a Jominian masterpiece. However, Lee's victory at Chancellorsville did little to alter the strategic situation in the East. Lee's last opponent, Lieutenant General Ulysses S. Grant, freely admitted not reading Jomini at West Point, nor Prussian theorist Carl von Clausewitz, although he employed the latter's ideas with brutal effectiveness against Lee during the Overland Campaign of the Spring-Summer of 1864. Despite tactical losses in most of the battles of the Overland Campaign, Grant trapped Lee at Petersburg and ground the Army of Northern Virginia down, eventually forcing Lee's—and the Confederacy's—surrender in 1865. How do the decisions and actions of these two men illuminate the distinction between the great theorists, Jomini and Clausewitz?

CONTACT HOURS: 1.0-hour lecture

WT-507 (S): War as Politics

Overview: Carl von Clausewitz, a Prussian contemporary of Jomini, is arguably the most influential of military theorists. While Jomini offered a more systematic and scientific study of war, Clausewitz developed a more nuanced, philosophical tome on the nature of war and the complexity of waging it. For Clausewitz, war was "not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means" (*On War*, p. 87). To this point, war could not be reduced to a set of military axioms, for it was far too complex and unpredictable, a paradoxical trinity of reason, chance, and primordial violence. How do Jomini and Clausewitz compare in their views of war? Is Clausewitz's understanding of war still relevant?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Clausewitz, *On War*, Book II: chaps. 1-4; Book I: chaps. 1, 2, 4, 7; and Book VIII: chaps. 1-8.

Theory [Key Concept]: This classic study of war is difficult reading, not because Clausewitz was a poor writer but because his ideas are sophisticated and complex. By his own

admission, his book was never completed, and some of his ideas were never fully developed to his own satisfaction. It is the most influential work of military theory to this day.

Recalling his professional military education, General Colin Powell wrote, “Clausewitz was an awakening for me. His *On War*, written 106 years before I was born, was like a beam of light from the past, still illuminating present-day military quandaries.”²

RECOMMENDED READING (OPTIONAL)

1. Paret, “Clausewitz,” in *Makers of Modern Strategy*, ed. Paret, 186-213.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8. **[JWC 1]**
2. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4; Chapter 3 (Joint Functions), III-1 to III-48; Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. **[JWC 2, 3, 4]**
3. Joint Publication 5-0, Chapter 3, Section B (Elements of Operational Design), III-18 to III-38. **[JWC 5]**

² Colin Powell with Joseph E. Persico, *My American Journey* (New York: Random House, 1995), 207.

DAY 4 – War as Politics

DATE: 14 August 2020

LESSON OBJECTIVES

1. Comprehend Clausewitz's concepts of strategy, the engagement, moral factors, economy of force, maneuver, the culminating point of victory, and the relationship between offense and defense.
2. Relate Clausewitz's concepts to the issue of war termination in the First Gulf War.
3. Discuss the relevance of Clausewitz's concepts for contemporary Joint operations.

LESSON OVERVIEW

WT-508 (S): War as Politics

Overview: Clausewitz wrote that "War is an act of force to compel our enemy to do our will" (p. 75). If Clausewitz is correct, what is the implication of his statement for war termination? This seminar will explore the issue of war termination in the First Gulf War, using the case as a way to engage Clausewitz's ideas about strategy, limited war, center of gravity, and the culminating point of victory, as well his concepts of uncertainty, chance, and friction.

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS (SEMINAR)

1. Clausewitz, *On War*, Book III: chaps. 1-5, 11, 14, 17, Book VI: chaps. 1-5, and 26, Book VII: chaps. 1-7, 13, 15, 16, 22.

Extension [Concept Refinement]: Our reading of Clausewitz continues, as we focus on his ideas about strategy, moral factors, maneuver, the relationship between offense and defense, and the culminating point of victory.

2. Gordon and Trainor, *The Generals' War*, 400-432.

Application [Case Study]: As you read about US decision-making and events surrounding the end of hostilities against Iraq in the First Gulf War, try to apply Clausewitz's ideas about strategy, limited war, centers of gravity, and friction, as well as other related concepts.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4; Chapter 3 (Joint Functions), III-1 to III-48; and Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38; and Chapter III (Defeat and Stability Mechanisms), III-29 to III-31. [JWC 5, 7]

DAY 5 – The Indirect Approach

DATE: 17 August 2020

LESSON OBJECTIVES

1. Comprehend the “indirect approach” to war and military strategy.
2. Review Sun Tzu’s ideas about strategy, deception, surprise, and intelligence.
3. Comprehend Liddell Hart’s arguments about strategy and success in war.

LESSON OVERVIEW

WT-509 (S): The Indirect Approach

Overview: This seminar examines the “indirect approach” to war and military strategy. The classic treatise is Sun Tzu’s *The Art of War*, written in 500 B.C.E. Sun Tzu stressed the importance of achieving victory through indirect methods, arguing the “supreme art of war is to subdue the enemy without fighting.” Liddell Hart, writing first in the aftermath of the First World War, and then following the dawn of the nuclear age, emphasized Sun Tzu’s ideas on the indirect approach to war. From a historical analysis of twenty-five centuries of warfare, Liddell Hart concluded that “throughout the ages, decisive results in war have only been reached when the approach was indirect. In strategy, the longest way round is apt to be the shortest way home.” (*Strategy*, pp. 4-5). In his view, the indirect approach to warfare conferred to the victor a moral and psychological advantage over the enemy. How are the theories of Sun Tzu and Liddell Hart different from those of Clausewitz and Jomini, and how are they similar? Does the indirect approach provide us insights into some of the contemporary security challenges we face?

CONTACT HOURS: 3.0-hour seminar

REQUIRED READINGS

1. Sun Tzu, *The Art of War*, trans. Samuel Griffith, 63-110, 144-149.

Theory [Key Concept]: Sun Tzu’s *The Art of War* is deceptively simple. It might appear like a “cookbook” on war and strategy, but its pithy maxims convey deeper meaning. It remains one of the most influential books on war ever written.

2. Liddell Hart, *Strategy* (2nd revised edition), xi-6, 319-360.

Extension [Concept Refinement]: As you read Liddell Hart’s writings on strategy and the “indirect approach,” examine his treatment of Sun Tzu’s ideas, and consider his experience as an officer and military intellectual in 20th century Britain.

RECOMMENDED READINGS (OPTIONAL)

1. Shy and Collier, “Revolutionary War,” in *Makers of Modern Strategy*, ed. Paret, 815-862.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Range of Military Operations), V-1 to V-5. [JWC 6]
2. Joint Publication 3-13, Chapter 1 (Overview), I-5 to I-13. [JWC 8]

3. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38; and Chapter III (Defeat and Stability Mechanisms), III-29 to III-31. [**JWC 5, 7**]

Phase II: How have war and military thought evolved across the warfighting domains over the last two centuries?

Technology and the Evolution of War

**DAY 6 – Land Domain—Maneuver Warfare:
The Fundamental Problem of the Lethality of Modern Firepower**

DATE: 18 August 2020

LESSON OBJECTIVES

1. Comprehend the technological, and doctrinal developments leading up to the First World War and their contribution to static warfare, as well as efforts to adapt and find new strategies and tactics to overcome the deadlock.
2. Comprehend J.F.C. Fuller’s theory of strategic paralysis and Heinz Guderian’s conception of mechanized warfare.
3. Review these theories of mechanized warfare (and other military theories) to explain the outcome of the Battle of France in 1940.
4. Discuss the relative contributions of the tank and Modern System tactics to the return of mobility on the Western Front in 1918, as well as to the development of German “blitzkrieg” warfare.

LESSON OVERVIEW

WT-510 (L): World War I and the Evolution of Combined Arms Maneuver Warfare (Campbell)

Overview: This lecture outlines successive developments before and during the First World War leading to later twentieth century understanding of modern maneuver warfare. In responding to the challenges posed by static warfare in Europe, the belligerents strove to harness new technologies, along with ideas about how to apply these technologies in a quest for decisive battles leading to victory. The differing national military interpretations of these lessons have shaped subsequent events, as well as understanding and perceptions of war’s evolving character down to the present day.

CONTACT HOURS: 1.0-hour lecture

WT-511 (S): Maneuver Warfare

Overview: Interwar Europe was a period of great transition, as military strategists struggled to understand the impact of technological change on the modern battlefield. They sought to find an approach that would avoid a repetition of the bloody trench stalemate from 1914-1918 and return mobility to the battlefield. Military theorists and practitioners J.F.C. Fuller and B.H. Liddell Hart in Great Britain, Charles de Gaulle in France, and Heinz Guderian in Germany, recognized the potential of armored warfare. How well did the military leaders and analysts of the interwar period understand the importance or role of weapons introduced during World War I? In examining the Battle of France (1940), how successful were they in developing doctrine that reflected the capabilities of the technologies of the day?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton, NJ: Princeton University, 2004, 32-50. [EL]

Theory [Key Concept]: This chapter presents a theory of force employment, termed the Modern System. Biddle argues that victory and defeat in battle results from mastery of modern system tactics—cover, concealment, dispersion, deep positions, reserves, small-unit independent maneuver, suppression, and combined arms integration. He further contends that only a small number of countries have managed to master these complex tactics, explaining why Western militaries have certain advantages in war.

2. J.F.C. Fuller, *On Future Warfare*, (London: Sifton Praed, 1928), 83-105. [EL]

Extension [Concept Refinement]: Fuller, who was one of the earliest advocates of mechanized warfare, argues the tank can deliver a crippling moral blow, thus achieving a quick and decisive victory. We will return to the idea of strategic paralysis again in our discussions of airpower.

3. Heinz Guderian, *Panzer Leader*, trans. Constantine Fitzgibbon (New York: E.P. Dutton, 1952), 39-46. [EL]

Extension [Concept Refinement]: Guderian, a contemporary of Fuller, played a central role in the development of interwar German armor doctrine. His conception of mechanized warfare differed in important ways from that of Fuller.

4. Ernest R. May, *Strange Victory: Hitler's Conquest of France* (New York: Hill and Wang, 2000), 347-361, 414-447. [EL]

Application [Case Study]: As you read about the Battle of France, examine whether the battle history offers support for the ideas of Fuller and/or Guderian, and develop your own explanation for the German victory and French defeat.

RECOMMENDED READINGS (OPTIONAL)

1. Holborn, "The Prusso-German School: Moltke and the Rise of the General Staff," *Makers of Modern Strategy*, ed. Paret, 262-280.
2. Rothenberg, "Moltke, Schlieffen, and the Doctrine of Strategic Envelopment," *Makers of Modern Strategy*, ed. Paret, 281-295.
3. Howard, "Men against Fire: The Doctrine of the Offensive in 1914," *Makers of Modern Strategy*, ed. Paret, 510-526.
4. Geyer, "German Strategy in the Age of Machine Warfare, 1914-1945," *Makers of Modern Strategy*, ed. Paret, 527-598.
5. Bond and Alexander, "Liddell Hart and De Gaulle: The Doctrines of Limited Liability and Mobile Defense," *Makers of Modern Strategy*, ed. Paret, 598-623.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8. [JWC 1]
2. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4; and Chapter 3 (Joint Functions), III-1 to III-48; Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. [JWC 2, 3, 4]
3. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38; and Chapter III (Defeat and Stability Mechanisms), III-29 to III-31. [JWC 5, 7]

DAY 7 – Maritime Domain—Command of the Sea or Sea Denial

DATE: 20 August 2020

LESSON OBJECTIVES

1. Comprehend the naval theories of Mahan and Corbett, and compare their different ideas about naval strategy, command of the sea, and sea denial.
2. Recognize the theories of Mahan and Corbett while discussing the outcome of naval operations in the Pacific Theater in World War II.
3. Comprehend the importance of sea power and the maritime domain for both historical and contemporary security environments

LESSON OVERVIEW

WT-513 (L): Command of the Sea versus Sea Denial: The Naval Campaign in the Pacific Theater, 1941-1945 (Hendrickson)

Overview: This lecture first discusses Mahan and Corbett in a broader context of naval theory, connecting their ideas to the body of theoretical approaches to the use of naval power. Second, it discusses the Pacific War from a strategic to operational perspective, focusing on how the participants adjusted their strategic approaches to changing circumstances in the theatre. This lecture provides a case study to understand how these theories were applied in the largest naval war in human history.

CONTACT HOURS: 1.0-hour lecture

WT-514 (S): Naval Theorists—Command of the Sea or Sea Denial?

Overview: Which set of ideas, Mahan’s or Corbett’s, better accounts for the “influence of sea power upon history,” since the military-technological revolution of the late-nineteenth and early-twentieth centuries? Are Mahan and/or Corbett’s ideas still relevant to our understanding of maritime warfare and naval strategy today?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Alfred Thayer Mahan, *The Influence of Seapower Upon History*, Chapter 1. [EL]

Background [Strategic Context]: Mahan is arguably the most lasting and influential naval theorist and historian. The opening chapter in Mahan’s seminal work on seapower introduces his ideas on naval strategy, including his main principles governing command of the sea. Note the influence of Jomini on his understanding of strategy and maritime operations.

2. Corbett, *Principles of Maritime Strategy*, 13-16, 49-56, 87-104, 128-135, 157-173, 182-184, 211-215, 235-245.

Extension [Concept Refinement]: Corbett, a contemporary of Mahan, emerged as Britain’s foremost naval theorist prior to the First World War. In this work, he lays out his views on maritime strategy, stressing the importance of command of the sea, the principle of the “fleet

in being,” and the relationship between land and naval forces. Note the influence of Clausewitz on his thinking.

RECOMMENDED READING (OPTIONAL)

1. Crowl, “Alfred Thayer Mahan: The Naval Historian,” *Makers of Modern Strategy*, ed. Paret, 444-480.
2. John Gooch, “Maritime Command: Mahan and Corbett,” in *Seapower and Strategy*, eds. Colin S. Gray and Roger W. Barnett (Annapolis, MD: Naval Institute Press, 1989), 27-45. [EL] This reading summarizes the main points of both theorists, while comparing and contrasting them in the context of the operational execution of naval strategy.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Range of Military Operations), V-1 to V-5. [JWC 6]
2. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4. [JWC 2]
3. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38. [JWC 5]

DAY 8 – Air Domain—The Origins of Air Power

DATE: 21 August 2020

LESSON OBJECTIVES

1. Comprehend emerging concepts of air superiority, strategic bombing, interdiction, and close air support in the writings of Douhet and Slessor.
2. Understand the development of the air arm during the First World War, which underpinned the emerging theories governing the uses of airpower during the interwar period.
3. Compare similarities and differences in the theories of Douhet and Slessor regarding the employment of air power.
4. Discuss the influence of other military theories on the writings of Douhet and Slessor.
5. Comprehend Warden’s theory of airpower, based on a five-ring model of enemy systems.

LESSON OVERVIEW

WT-515 (L): “Zero to Airpower:” World War One and the Genesis of Airpower Theory (Minney)

Overview: This lecture will explore the early use of the airplane during World War One, as the major combatants pondered how the new weapon affected access, maneuver, and effects on the battlefield. The lecture will cover the rapid technological change that occurred during the war, and early attempts to define air doctrine. It will introduce the theorists Giulio Douhet and J.C. Slessor, examining their wartime experiences as a basis for their thoughts on the air weapon after the war. It will conclude by asking whether the 42 day Desert Storm air campaign fits with either theory of airpower or represents a new way of thinking about air warfare.

CONTACT HOURS: 1.0-hour lecture

WT-516 (S): The Origins of Air Power

Overview: By the end of World War One, more questions than answers remained about the new air weapon. During the interwar period, bold claims for the power of air forces to supplant land and sea power matured alongside arguments for the emergence of independent air services. Airmen and theorists like Giulio Douhet in Italy and J.C. Slessor in Great Britain extolled airpower’s future prospects and made it a basis for their theories of airpower employment; this included discussions of air superiority, strategic bombing, interdiction, and close air support. This discourse about the capabilities and limitations of airpower continues to this day. What problems does airpower theory attempt to resolve? In what other forms of military theory do we see the origins of airpower theory? What are the common threads between the ideas of these airpower theorists? Where do they diverge? How does classical airpower theory apply to the modern warfighter? Finally, how does this debate about the role of airpower reflect larger discussions about the nature and character of “modern” war?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Douhet, *The Command of the Air*, 3-28, 45-56, 86-90, 103-125.

Theory [Key Concept]: Douhet's *The Command of the Air*, first published in 1921, continues to influence American airpower thinking. In this seminal work, Douhet develops his arguments about air superiority, aerial maneuver, offensive operations, and the importance of bombers. Note the influence of other military theories on his writings.

2. Slessor, *Air Power and Armies*, 1-10, 61-90, 200-215.

Extension [Concept Refinement]: Slessor, a contemporary of Douhet, drew on his experience flying in the First World War, to make the case for a strategy of air interdiction in support of land forces. This seminal book, based on a series of lectures he delivered in the early 1930s while on staff at the British Army Staff College, was very much ahead of its time. Note the similarities and differences between him and Douhet. Consider the relevance of these airpower theories today, especially in the context of possible analogies between the global security position of the British Empire in the 1930s, and the contemporary United States.

Note on Application: Lecture discussion of the evolution and uses of air power in WWI will serve as the application for this lesson.

RECOMMENDED READING (OPTIONAL)

1. MacIsaac, "Voices from the Central Blue: The Air Power Theorists," *Makers of Modern Strategy*, ed. Paret, 624-647.

RELATED JOINT DOCTRINE

1. Joint Publication 3-0, Appendix A (Principles of Joint Operations), A-1 to A-4; and Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. **[JWC 2, 4]**
2. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38. **[JWC 5]**

**Phase III: How might warfare evolve in the future?
Which military theories are most relevant for
understanding the nature and the character of war today
and in the future?**

The Present and Future of Warfare

DAY 9 – Nuclear Deterrence

DATE: 24 August 2020

LESSON OBJECTIVES

1. Comprehend the three classical approaches to nuclear deterrence.
2. Comprehend Schelling's arguments about nuclear deterrence and coercion, specifically the contrast of brute force with coercion, the distinction between deterrence and compellence, the importance of relinquishing the initiative, the challenges of extended deterrence, and the dangers of brinkmanship.

LESSON OVERVIEW

WT-517 (L): Nuclear Revolution or Evolution? Nuclear Deterrence Theory (Deaile)

Overview: This lecture introduces the key concepts and terminology used in the study of nuclear deterrence theory. In examining the emergence of deterrence theory, it presents three classical approaches to nuclear deterrence. It concludes with a discussion of the contemporary US approach to nuclear deterrence, emphasizing the continued challenges of extended deterrence.

CONTACT HOURS: 1.0-hour lecture

WT-518 (S): Nuclear Weapons and Deterrence

Overview: The atomic bombs dropped on Hiroshima and Nagasaki in August 1945 ended the Second World War and ushered in the nuclear age. The existence of nuclear weapons transformed our understandings about the use and threatened use of force in international disputes. Atomic and nuclear weapons raised questions about the varying advantage of defense over offense. Some strategists maintained that the advent of nuclear weapons undermined the very utility of war as a tool of statecraft while others argued that these new weapons gave military power a decidedly different political purpose—to deter rather than wage war. Are nuclear weapons simply more destructive or fundamentally different from conventional weapons? Does the existence of nuclear weapons confirm or negate ideas we have read from the classical war theorists, suggesting that the very nature of war, as they understood it, has changed?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Bernard Brodie, *Strategy in the Missile Age*, Project RAND Report R-335 (Santa Monica, CA: RAND, January 15, 1959), 173-222. [EL]

Theory [Key Concept]: This chapter in Brodie's central work outlines the arguments about the relative strength of attack and defense in Nuclear War, and Brodie makes recommendations and assessments about how strategy must be developed and investments made to respond to the new challenges thus revealed. How do Brodie's arguments both rely on and contrast with theorists read earlier in the course?

2. Schelling, *Arms and Influence*, 1-62.

Extension [Concept Refinement]: Schelling won the 2005 Nobel Prize in Economics for his work on nuclear deterrence theory. His theory of a “diplomacy of violence” was highly influential in shaping US Cold War strategy, and it continues to shape thinking about strategy and nuclear weapons to this day.

RECOMMENDED READING (OPTIONAL)

1. Freedman, “The first Two Generations of Nuclear Strategists,” *Makers of Modern Strategy*, ed. Paret, 735-778.

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8 and (Range of Military Operations), V-1 to V-5. [**JWC 1, 6**]

DAY 10 – Military Operations in the Space Domain

DATE: 25 August 2020

LESSON OBJECTIVES

1. Comprehend the fundamental tenets of Joint military doctrine for operations in space.
2. Comprehend the dynamics of contemporary space power, including the commercial and military space activities of the US and peer competitors.
3. Review theories of space power in terms of classical understanding of maritime strategy.
4. Comprehend ideas of cross-domain deterrence and how fundamentals of deterrence theory can be applied in space.

LESSON OVERVIEW

WT-519 (L): Sovereignty and the Law of War in Space (Harrington)

Overview: This lecture explores the fundamental differences between space and other domains and the challenge of applying war theory in this distinct domain. To that end, this lecture will have three parts. First, the lecture will address the unique characteristics of operating in space, including orbits, space assets, and space debris. Then, it will cover the relative differences in space as the ultimate high ground, removing geographic limitations, and how this challenges the application of traditional war theory to space, and will briefly discuss the relative advantages of being a member of the “space launch club.” Finally, the lecture will analyze the application of concepts of sovereignty as they have developed since the Treaty of Westphalia and the implications of the legal status of space as an area beyond territorial sovereignty.

CONTACT HOURS: 1.0-hour lecture

WT-520 (S): Military Operations in the Space Domain

Overview: The United States military is dependent on space capabilities, a critical vulnerability not lost on US adversaries. Space is not the “benign domain” of popular imagination, and the US must prepare for its constellation of satellites to be the first targets in the next war. Are military operations in space an auxiliary to operations in traditional domains of warfighting, or a new form of warfare itself? How likely are stand-alone acts of space war today and in the future? Has the militarization of the final frontier—space—changed the nature and/or character of modern war? This seminar takes up these issues through an examination of current US Joint doctrine governing space operations, ideas related to the application of accepted military theories to space, and notions of integrated strategic deterrence (or cross-domain deterrence).

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Joint Chiefs of Staff, *Space Operations*, Joint Publication 3-14, 10 April 2018, I-1 to I-12. [EL]

Background [Operational Context]: This chapter outlines the basis of current US military doctrine governing operations in and through the space domain.

2. James Moltz, “The Changing Dynamics of Twenty-First Century Space Power,” *Journal of Strategic Security* 12, no. 1 (2019), 15-43. [EL]

Background [Strategic Context]: Moltz argues that predictions of declining US space power are overblown, and fail to consider the differences between the state-owned and operated space enterprises in China and Russia, as well as the dynamic, innovative and cooperative government-commercial space enterprise in the US and the West. Note the influences of Mahan’s thinking on the basis of seapower in Moltz’ article.

3. Bleddyn Bowen, “From the sea to outer space: The command of space as the foundation of spacepower theory,” *Journal of Strategic Studies* 42, no. 3-4 (2019), 532-556. [EL]

Theory [Key Concept]: This article presents a theory of spacepower centered around the concept of “command of space,” which is directly related to Mahan’s theories on the fundamentals of seapower. Is this a useful way of understanding strategy concerning space?

4. Gartzke and Lindsay, eds. *Cross-Domain Deterrence: Strategy in an Era of Complexity* (New York: Oxford University Press, 2019), 121-143.

Application: The concept of “cross-domain deterrence” has applicability across multiple areas of military operations and seeks to provide a framework for understanding how traditional concepts of deterrence apply to new domains of warfare.

RECOMMENDED READING (OPTIONAL)

1. Freedman, Gartzke and Lindsay, eds. *Cross-Domain Deterrence: Strategy in an Era of Complexity* (New York: Oxford University Press, 2019), Introduction, 27-49.

RELATED JOINT DOCTRINE

See required readings.

DAY 11 – Irregular Warfare

DATE: 27 August 2020

LESSON OBJECTIVES

1. Comprehend the theories of irregular warfare as outlined by Mao Tse Tung and David Galula.
2. Comprehend the range of violence covered by the term “irregular warfare,” including insurgency, civil war, and terrorism, and the similarities and differences between these conflicts and a more traditional understanding of conventional war.
3. Review historical examples of irregular warfare using the theoretical models of Mao and Galula, as well the other classical theorists.

LESSON OVERVIEW

WT-521 (L): Theory and Practice of Irregular Warfare (Dean)

Overview: This lecture defines and describes the phenomenon of irregular warfare, and then goes on to examine classical theories concerning irregular warfare, from the perspective of diverse national experiences. It will also present practical examples illustrating the range of conflicts categorized as irregular, and contrasts these with the various theoretical frameworks used to understand this most complex form of warfare.

CONTACT HOURS: 1.0-hour lecture

WT-522 (S): Irregular Warfare

Overview: Irregular warfare is as old as human conflict and will likely be with us as long as we use organized violence to solve our political disputes. Terrorism, civil war, revolutionary or insurrectionary warfare, religious, ethnic and tribal conflicts and small-scale proxy wars can all fit into the category of irregular warfare. Indeed, later in the course you will encounter contemporary writers who have characterized cyber conflict as a manifestation of irregular war. If these wars are so prevalent and persistent, why has classical war theory not addressed them in any comprehensive way? Both Clausewitz and Jomini never fully developed their examination and analysis of what Clausewitz termed, “war among the people.” How do we come to a comprehensive understanding of these difficult conflicts, and how does theory improve our conception of the kind of war we are most likely to continue to fight in the future?

CONTACT HOURS: 2.0-hour seminar

GROUP PRESENTATION ASSIGNMENT

*****GROUP PRESENTATION DUE TODAY*****

(See WT-602E assignment for details)

REQUIRED READINGS

1. Galula, *Counterinsurgency Warfare: Theory and Practice*, xi-xiv, 1-10, 11-28, 29-42, 43-47.

Theory [Key Concept]: Galula served as an officer in the French Army during the insurgent war in Algeria in the 1950s. He drew on his experience and his further study of irregular warfare for this book, which is one of the first and most important theoretical examinations of how insurgencies work, how a counterinsurgency war should be fought, and what armies must do in order to succeed in these kinds of conflicts.

2. Fleet Marine Force Publication (FMFRP) 12-18, *Mao Tse-tung on Guerilla Warfare*, trans. Samuel B. Griffith, 5 April 1989, 3-8, 41-50, 88-93, 94-103. [EL]

Extension [Concept Refinement]: Mao Tse Tung, the leader of the Chinese Communist Revolution and brutal dictator of Communist China, produced this book as a guide for the successful application of lessons learned during the Chinese civil war. It contains the now classic “Mao-ist” understanding of the stages of an insurgency, and since its publication has been the inspiration for revolutionary wars in Latin America, Africa, South Asia, and Southeast Asia.

Application - Note on Case Studies: As part of the exercise WT-602E, students will brief an overview and analysis of one of three case studies during graded group presentations.

RELATED JOINT DOCTRINE

1. Joint Publication 3-0, Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. [JWC 4]
2. Joint Publication 5-0, Chapter 3 (Elements of Operational Design), III-18 to III-38; and Chapter III (Defeat and Stability Mechanisms), III-29 to III-31. [JWC 5, 7]

DAY 12 – Information Warfare and the Cyber Domain

DATE: 28 August 2020

LESSON OBJECTIVES

1. Comprehend Boyd’s theory of strategy, based on his concept of the OODA loop.
2. Relate the concept of the OODA loop to cyber warfare and information operations, such as recent Russian actions.
3. Compare Boyd’s OODA loop with Russian writings on non-linear warfare, specifically the Gerasimov Doctrine and the theory of reflexive control.
4. Discuss the application of theories and principles of irregular warfare to conflict in the cyber domain.
5. Comprehend the application of ideas concerning deterrence to cyber and information warfare.

LESSON OVERVIEW

WT-523 (L): The Cyber Age and Russian Information Operations (Schwonek)

Overview: This lecture explores the role of cyber warfare and information operations in contemporary Russian strategy. Although lampooned as artless and profligate of manpower, Soviet and Russian strategic thought is quite sophisticated. It has long prized integration of military and non-military instruments and careful preparation of the battlespace. From Deep Battle to the theory of reflexive control and the Gerasimov Doctrine, controlling and manipulating information and perceptions have been crucial. In current conditions which require the Russian Federation to avoid attacking an opponent’s army or cities, a genuine indirect strategy has emerged, with the potential “to subdue the enemy without fighting.”

CONTACT HOURS: 1.0-hour lecture

WT-524 (S): Information Warfare and the Cyber Domain

Overview: This seminar considers the applicability of the theoretical insights of John Boyd to cyber warfare and information operations. Is cyber an independent domain of conflict and war? In other words, will network-based technologies act as an enabler of traditional forms of warfare, or as a new form of warfare itself? Have information technologies changed the nature and/or character of modern war? To explore these issues, the seminar analyzes Boyd’s decision-making analytical framework. It considers both the promises and perils of cybersecurity, given the capacity of information-technologies to manipulate and disorient the enemy, as well as endanger US military decision-making and situational awareness. As Admiral Michael Rogers, former NSA Director cautioned, “But what happens when suddenly our data is manipulated, and you no longer can believe what you’re physically seeing?” The seminar applies Boyd’s framework to recent Russian information operations in the cyber domain, comparing Boyd’s ideas with the Gerasimov doctrine and the theory of reflexive control. Additionally, the seminar will consider the application of irregular warfare principles to the cyber domain.

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Osinga, “The Enemy as Complex Adaptive System: John Boyd and Airpower in the Postmodern Era,” *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd*, ed. Olsen, 62-92.

Theory [Key Concept]: Col John Boyd, a USAF fighter pilot who flew the F-86 Sabre during the Korean War, developed lessons from his combat experience into a generalized theory of conflict. He presented his ideas as a series of briefings slides. This chapter offers a summary and analysis of Boyd’s main arguments. As you read, apply Boyd’s ideas to information, space, and cyber warfare, as well as air operations. For those interested in reviewing Boyd’s slides, see <http://dnipogo.org/john-r-boyd/> and http://pogoarchives.org/m/dni/john_boyd_compendium/essence_of_winning_losing.pdf.

2. Valery Gerasimov, “The Value of Science in the Foresight,” *Military Review* (January-February 2016): 23-29. [EL]

Extension [Concept Refinement]: General Valery Gerasimov, Chief of the General Staff of the Russian Federation of Armed Forces, examines the future of war. After noting a tendency toward blurring the lines between war and peace, he argues non-military means are not auxiliary to the use of force but the preferred way to win. Give particular attention to his arguments about the “single intelligence-information space,” information technologies, and asymmetrical actions. Analyze the role of cyberspace attacks and information operations in the Gerasimov doctrine.

3. TL Thomas, “Russia’s Reflexive Control Theory and the Military,” *Journal of Slavic Military Studies* 17 (2004): 237-256. [EL]

Extension [Concept Refinement]: This article reviews the Russian theory of reflexive control. Compare these ideas with those of Boyd.

4. Frank C. Sanchez, Weilin Lin, and Kent Korunka, “Applying Irregular Warfare principles to Cyber Warfare,” *Joint Forces Quarterly* 92, (1st Quarter 2019): 15-22. [EL]

Application: The authors compare frameworks for understanding conventional and irregular warfare, and assert that cyber war is more easily understood in terms of irregular operations such as disruption, population influencing, direct action, etc.

RELATED JOINT DOCTRINE

1. Joint Publication 3-13, Chapter 1 (Overview), II-5 to II-13. [JWC 8]

DAY 13 – Writing Day and Student Meetings with Faculty

DATE: 31 August 2020

LESSON OBJECTIVES

1. Order ideas and outline a six-to-eight page paper.
2. Discuss thesis statement with seminar instructor.

LESSON OVERVIEW

WT-512 (S): Writing Day and Student Meetings with Faculty

Overview: In lieu of seminar, students will write and meet with faculty to discuss and review thesis statements for the final paper, due on 4 September 2020

REQUIRED READINGS

None.

RELATED JOINT DOCTRINE

None.

DAY 14 – “Gray Zone Warfare” and the Continuum of Competition

DATE: 1 September 2020

LESSON OBJECTIVES

1. Comprehend the concepts of “gray zone” and “hybrid warfare,” in the context of a “continuum of competition.”
2. Discuss arguments about the relative continuing merit of the traditional “peace-war binary,” and apply this analysis to the question of whether or not traditional boundaries between military and civil spheres in the realm of national security are still applicable.
3. Comprehend the concepts of “integrated campaigning” and “multi-domain operations,” and how the U.S. Joint force intends to apply these concepts in the future operating environment.

LESSON OVERVIEW

WT-525 (L): “Gray Zone Warfare” and the Continuum of Competition (Donnelly)

Overview: This lecture explores the challenges of Gray zone Warfare, the future security environment, the continuum of conflict, and the concept of global integrated campaigns. The future of warfare will likely raise difficult questions about what constitutes war and what the role of the military will be in conflict below the threshold of conventional war. As technology drives competition in areas outside of the traditional military sphere, how should the military be used and at what point should a nation recognize that they are at war with an adversary? Furthermore, in the future security environment competition will no longer be limited to traditional geographic boundaries. Therefore, a concept for employing the instruments of national power, to include the military, must be integrated across all domains and institutions.

CONTACT HOURS: 1.0-hour lecture

WT-526 (S): “Gray Zone” Warfare and the Continuum of Competition

Overview: Senior leaders in the U.S. Department of Defense, along with other civilian leaders and academics, have reasoned that given the asymmetric nature of U.S. military power, peer or near-peer competitors and adversaries are unlikely to engage the U.S. and our allies in conventional conflict. Rather, we anticipate that competition will take place below the threshold of armed conflict, and will occur in the “gray zone” between traditional understandings of peace and war. Recently, the Chairman of the Joint Chiefs of Staff has posited that we have entered an era of a “continuum of conflict,” a time when we are forced to operate on the assumption that competition and war are constant, with actions occurring simultaneously along the full spectrum of conflict. Competition eroding international norms, beyond and across long-understood physical and other boundaries in space, the electromagnetic spectrum, the cyber domain, and the information space are all parts of this continuum. How do the Joint force and our allies and partners organize, present forces, and exercise command and control in such an environment, where actions must be synchronized across domains, across the elements of national power, at speed, in order to protect our national interests? How do we do this while at the same time presenting our adversaries with multiple simultaneous dilemmas across the breadth and depth of the battlespace? How do governments, international organizations, and civil society respond to this kind of “gray

zone” warfare, and what are the implications of this continuum of conflict for our traditional understanding of war, peace, and the role of the military?

CONTACT HOURS: 2.0-hour seminar

REQUIRED READINGS

1. Joint Chiefs of Staff, *Joint Concept for Integrated Campaigning*, 16 March 2018. [EL]

Theory [Key Concept]: Given the dynamic and complex operating environment, now and into the foreseeable future, the Joint Staff has produced this new operating concept which introduces the idea of “integrated campaigning,” which argues for an integration and alignment of services, combatant commands, and multinational and inter-governmental partners to achieve national objectives across the “continuum of competition.” Is the traditional “peace/war binary” now truly obsolete?

2. Joint Chiefs of Staff, *Joint Doctrine Note 1-19: Competition Continuum*, 3 June 2019 [EL]

Extension [Concept Refinement]: Joint Doctrine Note 1-19 provides a brief refinement of the concept of the “Competition Continuum” laid out in the *Joint Concept for Integrated Campaigning*. What are the implications here for our understanding of the role of military power in politics, or even domestic defense, if there is no longer a clear demarcation between peace and war? How does the military element of national power now interact with the other elements of national power (Diplomatic, Informational, Economic)? Does this concept imply that we are always in a state of “war?”

3. Morris, Lyle J, Michael J. Mazarr, Jeffrey W. Hornung, Stephanie Pezard, Anika Binnendijk, Marta Kepe. “Responding to the Gray Zone Challenge: A Strategic Concept.” in *Gaining Competitive Advantage in the Gray Zone: Response Options for Coercive Aggression Below the Threshold of Major War*. (Santa Monica, CA: RAND, 2019), 129-154. [EL]

Extension [Concept Refinement] and Application [Case Study]: This monograph provides an assessment of the gray zone tactics used by the most active U.S. competitors, and presents an approach for how the US can and should respond to these actions. Do these ideas fundamentally challenge our accepted notions of the military and civilian spheres in the national security realm? How would Clausewitz respond to these ideas?

RELATED JOINT DOCTRINE

1. Joint Publication 1, Chapter 1 (Levels of Warfare), I-7 to I-8; and (Range of Military Operations), V-1 to V-5. [JWC 1, 6]
2. Joint Publication 3-0, Chapter V (Joint Operations across the Conflict Continuum), V-7 to V-14. [JWC 4]
3. Joint Publication 5-0, Chapter III (Defeat and Stability Mechanisms), III-29 to III-31. [JWC 7]

DAY 15 – Military Theory and US Joint Doctrine: How We Fight

DATE: 3 September 2020

LESSON OBJECTIVES

1. Comprehend political, social, economic, and technological changes transforming contemporary armed combat, and the connections between theory, practical experience, and current Joint military doctrine.
2. Discuss the implications of these changes for the future of warfare, specifically the nature and/or character of war in the future.
3. Relate the theories studied in this course to the contemporary and future security environment.

LESSON OVERVIEW

WT-527 (Movie): *The Fog of War: Eleven Lessons from the Life of Robert S. McNamara*

Overview: This documentary movie follows the life and career of former Secretary of Defense Robert S. McNamara, who held that position during the Kennedy and Johnson Administrations. He also worked on the staff of the 20th Air Force under General Curtis LeMay during WWII. In the movie, McNamara shares his views and experiences regarding war and its relation to politics and national strategy, ethics, and organizational leadership. As you watch this film, consider how McNamara’s life and experiences, and the way he describes and assesses these things, relate to ideas and themes discussed and read about in the course. How do these lessons fit into your own assessments of war and the future of armed conflict?

CONTACT HOURS: 2.0-hour movie

WT-528 (S): Military Theory and US Joint Doctrine

Overview: This course has explored the consequences of societal, political, organizational, and technological changes over the course of the last three hundred years. We have observed both fundamental change and persistent continuity in the practice of war. As war is fundamentally a human activity, as humankind evolves, so do the ways and means of human violence. Now, the seminar will tie together these concepts with an understanding of how our current Joint military doctrine is based on theory and practical experience – both ideas and the hard lessons of war inform the way we fight. As we end the course, some questions to think about: Are we in the midst of a “revolution in military affairs?” How might the nature and/or character of war change in the future? This seminar engages these fundamental questions, as it reviews the main themes, theories, and readings of the course.

CONTACT HOURS: 1.0-hour seminar

WRITTEN ASSIGNMENT

****FINAL PAPER IS DUE (WT-601E) 2359 ON 4 SEPTEMBER****

REQUIRED READINGS

1. Review: Joint Chiefs of Staff, Joint Publication 1, March 2013. I-1 – I-21 [EL]

This reading is the introductory chapter in the foundational Joint doctrine manual for the US military. It outlines fundamental principles of our doctrine, and makes explicit connections between much of the classical military theory contained in the course, and US doctrine. As you review the principles guiding the employment of US Joint forces, note the influence of the different military theories and theoretical concepts studied in this course.

RELATED JOINT DOCTRINE

None.

APPENDIX: COURSE FACULTY

Dr. Lisa L. Beckenbaugh is an Associate Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). Dr. Beckenbaugh received her bachelor's and master's degrees from St. Cloud State University and her PhD from the University of Arkansas. Dr. Beckenbaugh has taught at a variety of undergraduate and graduate civilian institutions. Last year her book, *The Versailles Treaty: A Documentary and Reference Guide* for ABC-CLIO, was published. Dr. Beckenbaugh also serves as the faculty advisor for the Gathering of Eagles elective and has edited three of their recently published books, *Leading Airpower into the 21st Century: Stories of Courage, Innovation, and Resiliency*, *Spirit of the Storm: A Collection of Interviews from the Gulf War Era*, and *Soaring Above: Stories of Leadership, Heroism, and Overcoming Adversity*. Dr. Beckenbaugh's current research is on the 1st MASH (Mobile Army Surgical Hospital), later redesignated 8209th MASH, during the Korean War. **Research Interest/Expertise includes:** Oral History, American POWs, World War II, Women in Combat, Battlefield Medicine, and MASH Units in the Korean War.

Dr. Terry Beckenbaugh is an Associate Professor in the Department of Air Power at Air University's Air Command and Staff College (ACSC) at Maxwell Air Force Base. He came to ACSC from the US Army Command and General Staff College at Fort Leavenworth, Kansas, where he taught for nine years in the Department of Military History. Dr. Beckenbaugh received his PhD in 19th Century US History from the University of Arkansas, and his Masters and Bachelors in US History and History, respectively, from Shippensburg University of Pennsylvania. Beckenbaugh has taught at a variety of undergraduate and graduate civilian institutions. He is currently working on a book on the White River Campaign in Arkansas in the spring-summer of 1862, and has numerous publications and conference presentations.

Dr. James D. Campbell is an Associate Professor of Military and Security Studies in the Joint Warfighting Department. A retired US Army Brigadier General, Dr. Campbell served as an Infantryman and Strategic Plans and Policy Officer for 30 years, with assignments at all levels of command and staff, in both the Regular Army and the National Guard. Most recently he served as the Deputy Chief, Operations Plans Division at US Central Command, and prior to his retirement served as the 39th Adjutant General of Maine with the state cabinet-level position of Commissioner of the Maine Department of Defense, Veterans and Emergency Management. Dr. Campbell holds a M.A. in European History and a Ph.D. in British History from the University of Maine. He is a graduate of the CAPSTONE course at the National Defense University, the US Army War College, and was an International Security Studies Fellow at the Fletcher School of Law and Diplomacy, Tufts University. Dr. Campbell has published works on subjects ranging from Homeland Defense, to Irregular Warfare, and 19th and early 20th century British Military History. His current research interests focus on British Imperial military operations and the Army in India.

Lt Col Paul Clemans, USAF, Ph.D., is an Assistant Professor of Military and Security Studies at the Air Command and Staff College. Lt Col Clemans earned his bachelor's degree in Marine Engineering from the U.S. Merchant Marine Academy. The program afforded him the opportunity to sail on six different ocean-going merchant ships for a year, including the S.S. Cape Intrepid in Operation Uphold Democracy. The education and experience culminated in a Coast Guard license authorizing him to operate any

maritime steam or diesel engine of unlimited horsepower. In the U.S. Air Force, he served as an acquisitions officer for approximately twelve years in various programs such as the Integrated Maintenance Data System, the Distributed Common Ground Systems, and the Airborne Laser. He earned his Program Management Level III certification from Defense Acquisition University during this time. Lt Col Clemans career broadened into the operations research with the completion of his master's degree in the field from the Air Force Institute of Technology. In this capacity, he deployed twice to planning units in Afghanistan for Operation Enduring Freedom, the Headquarters International Security Assistance Force (HQ ISAF CJ5) and the 438th Air Expeditionary Wing (438 AEW/J5). More recently, Lt Col Clemans earned his doctorate in American History from Florida State University in 2019. His dissertation examined the relationship between civilian aviation, the government, and the military. The subject remains the focus of his research interests.

CDR Patrick Corcoran is the Naval Advisor to the Commandant Air Command and Staff College. He has an MBA from Liberty University, a MS in Strategic Studies from the Air War College, and a BS in Business Operations from the Ohio State University. Prior to arriving at ACSC, CDR Corcoran was the Officer-In-Charge, NAVCENT Qatar. He is a Naval Flight Officer with over 2800 hours in S-3Viking, ES-3A Shadow and EA-6B Prowler aircraft. He has served as an Aide to COMNAVSPACECOM and is a Joint Duty Qualified Officer who has completed tours as a member of the Joint Fires Integration and Interoperability Team, Eglin Air Force Base, as a Division Counter-IED Officer in Iraq, and Navy Air Liaison Officer in Islamabad, Pakistan.

Dr. Ronald Dains currently serves in the Department of International Security at the Air Command and Staff College (ACSC) . He holds an MA and PhD in Political Science from the University of Alabama and an MAS in Aeronautical Science and BS in Professional Aeronautics from Embry-Riddle Aeronautical University. During his doctoral matriculation he specialized in International Relations with minor fields of study in American Politics and Public Administration. His dissertation, Lasswell's Garrison State Reconsidered: Exploring a Paradigm Shift in U.S. Civilian- Military Relations Research, explored the existence of plausible indicators to determine the potential for an increasingly influential military presence in the US policymaking process. He offers elective courses in US Civil-Military Relations and Logistics and the Use of Military Force. Dr. Dains was assigned to ACSC from 2005 to his retirement in 2006.

Dr. Melvin G. Deaile is the Director of the School of Advanced Nuclear and Deterrence Studies (SANDS) and an Associate Professor in the Department of International Studies at Air University's Air Command and Staff College. He teaches classes on nuclear deterrence, nuclear strategy, joint warfighting, and classical military thought. Dr Deaile hails from Fresno, CA native, and is a retired Air Force Colonel, where he served two tours in the B-52 Stratofortress and a tour in the B-2 Spirit. He has flown combat operations as part of Operations DESERT STORM and OPERATION ENDURING FREEDOM, including a record setting 44.3 hour combat mission, and deployed in support of Operation IRAQI FREEDOM. He is the recipient of the Distinguished Flying Cross and a distinguished graduate of the USAF Weapon School. Dr Deaile recently published his first book, *Always at War*, which chronicles the development of SAC's organizational culture under Gen Curtis LeMay. He is the author of multiple articles, editorials, and book reviews on nuclear weapons and their role in national security.

Dr. William Dean is an Associate Professor of History at the Air Command and Staff College at Maxwell AFB, AL. He is a graduate of the Univ. of the South (Sewanee) and received his doctorate and master's degrees from the University of Chicago in European military and diplomatic history. He was a Chateaubriand recipient from the French government and has won the Military Officer of America Association (MOAA) award for civilian educator of the year and the Major General John Alison Award for Air Force Special Operations. He has published on French colonial warfare, intelligence, and air power issues in *Revue Historique des Armees*, *Penser les Ailes Francais*, *Defense Intelligence Review*, and several chapters in various books.

Dr. Robert C. DiPrizio is an Associate Professor in the Department of International Security at Air University's Air Command and Staff College (ACSC) at Maxwell Air Force Base. He earned his PhD in Political Science and International Relations from the University of Delaware and teaches multiple courses at ACSC including the International Security Studies I and II core courses and an elective on Arab-Israeli Conflict. He is the author of numerous articles and chapters as well as the book *Armed Humanitarians: US Interventions from Northern Iraq to Kosovo*, published by Johns Hopkins University Press. His latest book, *Conflict In the Holy Land: From Ancient Times to the Arab-Israeli Conflicts*, was published in February of 2020 by ABC-CLIO.

Dr. Everett Carl Dolman is Professor of Comparative Military Studies at the US Air Force's Air Command and Staff College (ACSC). His focus is on international relations and theory, and he has been identified as Air University's first space theorist. Dr. Dolman began his career as an intelligence analyst for the National Security Agency, and moved to the United States Space Command in 1986. In 1991, he received the Director of Central Intelligence's Outstanding Intelligence Analyst award. Dr. Dolman received his PhD in Political Science from the University of Pennsylvania in 1995. He then taught international relations and international political economy at The College of William & Mary, Southern Illinois University-Edwardsville, and Berry College before taking his current position at Maxwell AFB in Alabama. Dr. Dolman received the Air Force's Educator of the Year Award for 2003/04. His published works include *Astropolitik: Classical Geopolitics in the Space Age* (2002); *The Warrior State: How Military Organization Structures Politics* (2004), *Pure Strategy: Power and Principle in the Information Age* (2005), and *Can Science End War?* (2015). He has written numerous book chapters as well as articles for the *Journal of Strategic Studies*, *Comparative Strategy*, *Journal of Small Wars and Insurgencies*, *Soviet and Post-Soviet Review*, *Citizenship Studies*, *Politics and Society*, *Journal of Political and Military Sociology*, and *The Air and Space Power Review*. Dr. Dolman is also co-founder and editor emeritus of *Astropolitik: The International Journal of Space Power and Policy*. **Research Interest/Expertise includes:** Military Strategy, Space and Cyber Power, Civil-Military Relations, Intelligence, Military Theory and Philosophy

Lt Col Travis R. Eastbourne is an instructor in the Department of Joint Warfighting. He is a 1998 graduate of Washington State University where he graduated with a BA in Communications. Lt Col Eastbourne is a graduate of ACSC and has a Masters of Military Art and Science. He is a Master Air Battle Manager with over 3900 hours in the E-3A/B/C/G. He has deployed and flown Combat/Combat Support sorties in Operations SOUTHERN WATCH, NORTHERN WATCH, IRAQI FREEDOM, ENDURING FREEDOM, UNIFIED PROTECTOR, and INHERENT RESOLVE. He served as the Director of Staff for 7th Air Force A3/A5 from 2008 to 2009 and later served as Deputy Chief Air Battle

Manager as well as an Instructor Mission Crew Commander/Evaluator Senior Director for the 513 Air Control Group in the Air Force Reserve. Most recently he served as the deputy course director for Joint Warfighting from October 2018 until July 2020.

Dr. Jon Hendrickson is an Assistant Professor of Military and Security Studies in the Joint Warfighting Department. After being awarded a Tyng Scholarship to Williams College, he earned his Ph.D in military history from The Ohio State University, where he was awarded a Mershon Center Fellowship to conduct research in Vienna, Rome, Paris and London. This research led to the publication of *Crisis in the Mediterranean*, a book on the shifting alliances and naval races in the Mediterranean before World War I. After graduating from Ohio State, he was awarded the Class of 1957 Post-Doctoral Fellowship in Naval History at the US Naval Academy, and taught at Coastal Carolina University. He has published and presented several papers on naval and military history, ancient history, and diplomatic history.

Dr. Kevin C. Holzimmer is Professor of Comparative Military Studies at the Air Command and Staff College (ACSC). Before his current position at ACSC, he was a research professor at the USAF Air Force Research Institute and taught at the School for Advanced Air and Space Studies. Dr. Holzimmer has published numerous studies on World War II in the Pacific, including *General Walter Krueger: Unsung Hero of the Pacific War* (University Press of Kansas). He is currently working on a book-length project that examines how the principal air, land, and sea commanders forged an effective joint team that successfully fought the Japanese in Douglas MacArthur's Southwest Pacific Area. In addition to his academic pursuits, Dr. Holzimmer has worked on recent policy concerns, first with GEN David H. Petraeus' USCENTCOM Joint Strategic Assessment Team (9 October 2008- February 2009) and most recently conducting fieldwork in charting a U.S. Air Force strategy based upon President Obama's famous "pivot to Asia" speech. He holds a PhD in military history from Temple University.

Dr. Wes Hutto is Assistant Professor of Military and Security Studies in the Department of International Security, at the USAF Air Command and Staff College. He holds a PhD in Political Science from the University of Alabama. He serves as Course Director of International Security I: The Context of International Security, and offers electives on comparative regional security and multinational military exercises. His research interests include international security, military science, multinational military exercises and US foreign policy, and comparative regional security. He has published in *Defence Studies* and *RUSI Journal*.

Dr. Robert M. Kerr is an Associate Professor in the Joint Warfighting Department. He also previously served as Course Director for International Security 2: The Use of Armed Force. He holds a PhD in Political Geography from the University of Oregon, and an MA in Geosciences from the University of South Carolina. His BA is in History with an emphasis on the Islamic World from Grand Valley State University. In addition to teaching at ACSC, Dr. Kerr has worked at the Air Force Culture and Language Center, and taught courses at the US Air Force Special Operations School, the Senior NCO Academy, and the Air Advisor Academy. In 2008-2009 he spent 15 months in NE Baghdad with the 3rd Brigade, 4th Infantry Division and 1st Brigade, 1st Cavalry Division as an embedded political/cultural advisor.

Dr. Michael Kraig is Associate Professor of International Security at the Air Command and Staff College. He earned his Ph.D. in political science from the University at Buffalo, New York, with a major

in international security studies and a minor in comparative politics. Dr. Kraig served in several senior capacities with the Stanley Foundation, a non-profit, non-partisan NGO devoted to advocating security policy options for the United States and its competitors that would moderate the extremes of their geopolitical disagreements. He was a frequent traveler to Washington, DC, Europe, and the Middle East to give scholarly presentations to senior policy leaders, policy analysts, and academics. His publications include the book, Shaping U.S. Military Forces for the Asia Pacific: Lessons from Conflict Management in Past Great Power Eras, published by Rowman & Littlefield Press. He has also authored numerous articles on US-Iran relations, nuclear deterrence in the developing world between regional rivals, and military theory and its relation to US conventional force posture in East Asia, in the *Journal of Peace Research*, *India Review*, *Security Studies*, and *Strategic Studies Quarterly*.

Mr. Brent Lawniczak is an Assistant Professor of Military and Security Studies at Air University's Air Command and Staff College (ACSC). A retired Marine aviator (UH-1N/UC-12), he has served in multiple theaters in various capacities. He is a graduate of Michigan State University, and the United States Marine Corps Command and Staff College. He served as the Senior Marine Corps Advisor to the Commandant of ACSC from 2008-2012. Additionally, Brent was qualified as a Command Pilot, Forward Air Controller (Airborne) (FAC(A)), Forward Air Controller (FAC)/Joint Terminal Attack Controller (JTAC), and Weapons and Tactics Instructor. His interests and expertise include joint planning, operational design, joint fires, maritime and amphibious operations, aviation operations, policy formulation, American politics, and international relations, and U.S. military history.

Dr. Sebastian H. Lukasik is an Associate Professor of Comparative Military Studies in the Department of Airpower at the United States Air Force's Air Command Staff College (ACSC). He received a PhD in American History from Duke University. He has served as Course Director for the Leadership and Warfare course and the Airpower I course. Prior to arriving at ACSC, he taught as a visiting instructor at Duke University and North Carolina State University. In addition to teaching courses in the ACSC core curriculum, he offers elective classes on Combat Motivation and Morale in Historical Perspective, Cultural History of Flight, and war and society in the era of the World Wars. **Research Interest/Expertise includes:** Military Culture; Combat Motivation and Morale in modern Warfare; the First World War; Cultural History of Flight; Grand Strategy and Strategic Culture.

Dr. Robert (Bob) Mahoney is the Chair, Department of Joint Warfighting at the Air Command and Staff College. He has a PhD in History from the George Washington University, a MS in National Resource Strategy from the Eisenhower School, National Defense University (NDU), a MS in Management from Webster University, and a BS in Engineering Sciences from the United States Air Force Academy. Prior to arriving at ACSC, Dr. Mahoney was the Dean of the Marine Corps War College and an Assistant Professor at the Eisenhower School at NDU. His book, The Mayaguez Incident, was published by Texas Tech Press. He is a retired USAF Colonel with over 27 years of service, commanded a KC-135 flying squadron, was on the AMC and CJCS staff, and was a command pilot with over 3500 hours in the T-37, T-38 and KC-135. His research interests include the US Constitution, Joint Warfighting, Joint Planning, Operational Design, Leadership, US Air Force History, Vietnam War era, WW II, Revolutionary War, and Civil War.

Maj Christopher G. Marquis is the Director of Instruction for the Department of Joint Warfighting. He is responsible for ensuring faculty members are fully credentialed and prepared to teach the department's core courses. Along with instructing War Theory, he has also taught the Joint Warfighting course and the elective "Understanding the U.S. Constitution." His primary career field is contracting, and he has deployed to both Iraq and Afghanistan as a contingency contracting officer. He was commissioned through the Officer Training School at Maxwell AFB, Alabama. He earned his bachelor's degree in government and economics from Cornell University in Ithaca, NY, and his MBA from the University of Massachusetts, Lowell. He is currently a doctoral candidate in the History Department at Auburn University.

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LTC Ryan L. Reid is an instructor in the Department of Warfighting and Deputy Course Director of War Theory at the Air Command and Staff College. LTC Reid is a 1998 graduate of the University of North Georgia where he graduated with a BS in Physics and was commissioned as a U.S. Army Logistics officer. He is a graduate of ACSC and SAASS Class XXI, holds an MBA and is currently pursuing his PhD in Public Administration and International Relations from Auburn University. He has served at all levels of leadership and staff from platoon through Division, including multiple combat and operational deployments. He served as the Strategic Logistics planner and Retrograde Chief for USFOR-A during the 2013 reduction of US forces from Afghanistan and most recently served four years as the Professor of Military Science of the Army ROTC Mustang Battalion at Auburn University Montgomery and Troy University.

Dr. M.V. “Coyote” Smith, Colonel, USAF (retired), is a Professor of Strategic Space Studies in the Schriever Scholars Space Concentration at the Air Command and Staff College. Dr. Smith joined the Air Force in 1976 as a cadet in the Civil Air Patrol. He earned a bachelor’s degree in physiology from Saint Michael’s College in 1986, a master’s degree in political science from the University of South Dakota in 1993, and a PhD in strategic studies from the University of Reading (UK) in 2011. He is also a graduate of the USAF Weapons School, Air Command and Staff College, and the School of Advanced Airpower Studies. He served as a strategist in three wars; at the combined air operations center during Operation Allied Force, at USCENTCOM during Operation Enduring Freedom, and at the Pentagon on Secretary Rumsfeld’s Strategic Planning Council during Operation Iraqi Freedom. He retired from active duty in 2016 after a 30-year career, having served in various flying, missile, space, and academic assignments. He loves the Air Force and believes you should, too!

Dr. Paul J. Springer is the Chair of the Department of Research and a full professor of comparative military studies. He holds a PhD in military history from Texas A&M University. He is the author or editor of more than a dozen books, including *America's Captives: Treatment of POWs from the Revolutionary War to the War on Terror*; *Military Robots and Drones: A Reference Handbook*; *Transforming Civil War Prisons: Lincoln, Lieber, and the Laws of War*; *Cyber Warfare: A Reference Handbook*; and *Outsourcing War to Machines: The Military Robotics Revolution*. In addition, he has published hundreds of shorter pieces, on a variety of subjects including military history, terrorism, strategy, technology, and military robotics. In 2019, he was asked by CSAF General David Goldfein to co-author a book on leadership and command, which will be published by the Air University Press. Dr. Springer is a Senior Fellow of the Foreign Policy Research Institute, and the series editor for both the *History of Military Aviation* and *Transforming War* series, produced by the U.S. Naval Institute Press. Currently, he is completing three books, including a collective biography of the West Point Class of 1829; a military history textbook (co-authored with ACSC Professor S. Michael Pavelec); and an examination of the post-Civil War creation of higher education institutions in the South. **Research Interest/Expertise includes:** POW operations; military leadership and command; strategy; military technology; artificial intelligence; cyber warfare; and U.S. military history.

Dr. Christopher M. Stamper retired in 2010 after 21 years as a naval helicopter pilot. Since then, he has taught for every department at ACSC but has primarily been an instructor of Joint Warfighting. He holds a Bachelor of Science Degree in Oceanography from the US Naval Academy, a Master of Arts in National Security and Strategic Studies from Naval War College, and a Doctorate in Public Administration from Capella University. His research interests are in Public Policy and Public Administration of Peacekeeping Operations, East African Affairs, Joint Planning, African Professional Military Education, and Contemporary African Military Operations. He has taught at both the US Naval Academy and the Air War College.

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Col Jason "TOGA" Trew is the Dean of Squadron Officer School. He graduated the USAF Academy in 1999 with a BS in Legal Studies and Russian Area Studies and minors in Philosophy and Russian

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Dr. Heather P. Venable is an Associate Professor of Military and Security Studies in the Department of Airpower. She has taught Airpower I, Airpower II, and electives on close air support and the historical experience of combat. She also has served as the Airpower Two course director. As a visiting professor at the US Naval Academy, she taught naval and Marine Corps history. She graduated with a B.A. in History from Texas A&M University and a M.A. in American History from the University of Hawai'i. She received her PhD in military history from Duke University. She also has attended the Space Operations Course as well as the Joint Firepower Course, where she was a distinguished graduate. Her book, published by Naval Institute Press, is entitled *How the Few Became the Proud: The Making of the Marine Corps' Mythos, 1874-1918*. Previous published work includes "There's Nothing that a Marine Can't Do": Publicity and the Marine Corps, 1905-1917" in *New Interpretations in Naval History: Selected Papers from the Sixteenth Naval History Symposium* and "The China Marines and the Crucible of the Warrior Mythos, 1900-1941" in *Crucibles: Selected Readings in U.S. Marine Corps History*. She is also a non-resident fellow at Marine Corps University's Krulak Center. Her professional service includes editing for Field Grade Leader, Strategy Bridge, and Wild Blue Yonder. She also has contributed many articles about airpower and the current Air Force to online publications including Strategy Bridge, War on the Rocks, and the Modern War Institute. Her current research centers on intersections between theory and pre-war thinking and the application of airpower in combat.

Dr. Michael E. Weaver, is an Associate Professor of History in the Department of Airpower at the United States Air Force's Air Command and Staff College. He specializes in the history of war and warfare and is the author of *Guard Wars: The 28th Infantry Division in World War II* (Indiana University Press, 2010), as well as six articles. His most recent have been published in *The Journal of Aeronautical History* and *Diplomatic History*. Weaver's second book, *National Policy and Air Power Effectiveness during the Vietnam War*, is under review for publication. Weaver's skills include leading small group discussions, academic lecturing, research, and writing. His book reviews have appeared in *The Journal of Military History*, and *H-War*, among others. Prof. Weaver has taught courses on U.S. history, war & society, American military history, the Vietnam War, World War II, African-American history, international security, and air power. He received his doctorate from Temple University in 2002 having worked with Russell Weigley and Richard Immerman. Weaver also studied under William Leary, John Morrow, Jr., and Eugene Genovese at the University of Georgia. **Research Interest/Expertise includes:** Cold War, History of the Vietnam War, U.S. Military History, Aviation History, World War II, Force & Diplomacy, and History of the United States.

Dr. Jonathan K. Zartman is an associate professor of international security studies in the Department of Research at Air Command and Staff College. He received his Ph. D. in 2004 from the University of Denver's Graduate School of International Studies. He taught at the Samarkand State Institute of Foreign Languages in Samarkand, Uzbekistan as a Fulbright Fellow (2005-2006). He has also received a David L. Boren Fellowship for language study and research in Dushanbe, Tajikistan at the Technological University of Tajikistan (2000-2001). He has taught at the University of Northern Colorado, and Metropolitan State College of Denver. He is the editor of *Conflict in the Modern Middle East: An Encyclopedia of War, Revolution and Regime Change*. He has written on negotiation, Islamic ethics and sustainable peacebuilding. He is editing a book of Tajik history titled *Two Tajik Heroes* by Saddridin Aini. His research interests include the process of radicalization, terrorist ideology, the Persian-speaking world and the broader MENA region. His work promotes understanding of indigenous cultural identity in the service of building peace.

Dr. Brent D. Ziarnick is an Assistant Professor of National Security Studies at the Air University's Air Command and Staff College. Dr. Ziarnick is a command space operations officer in the Air Force Reserve with extensive experience in Global Positioning System (GPS) engineering, offensive space control, and theater space command and control. In civilian life he was a launch operations engineer at Spaceport America, New Mexico where he developed the long-range plan for the world's first purpose-built inland commercial spaceport's vertical launch activity. Dr. Ziarnick also developed and executed as the first director of the Schriever Scholars concentration. He holds doctorates in economic development from New Mexico State University and military strategy from Air University, a master's degree in space systems engineering from the University of Colorado-Colorado Springs, a bachelor's degree in space operations from the United States Air Force Academy, and is a graduate of both the Air Command and Staff College and the School of Advanced Air and Space Studies. Dr. Ziarnick is the author of three books and multiple articles on space power theory and strategy. **Research Interest/ Expertise includes:** Space Power Theory and Strategy, Technology Strategy, the Cold War Air Force (Strategic Air Command), and Economics and Military Power.